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**DIVORCE LICENSING:  
SEPRATE CRITERIA FOR PREDICATE AND CLAUSAL ELLIPSIS**

A Dissertation Presented

by

TRACY CONNER

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2019

Linguistics

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**DIVORCE LICENSING:  
SEPRATE CRITERIA FOR PREDICATE AND CLAUSAL ELLIPSIS**

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TRACY CONNER

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*For Goldie Mae McKinney a.k.a. "Granny"*

## **ACKNOWLEDGMENTS**

“Now to Him who is able to keep you from falling, and to present you faultless before the presence of His glory with exceeding joy, to the only wise God our Savior, be glory and majesty, dominion and power, both now and forever. Amen.”

Jude 1:24-25

## **ABSTRACT**

### **DIVORCE LICENSING: SEPRATE CRITERIA FOR PREDICATE AND CLAUSAL ELLIPSIS**

MAY 2019

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Current theories of ellipsis share the assumption that ellipsis is licensed by the presence of a licensing feature, [E], on a functional node in syntax (Lobeck 1995, Merchant 1999, 2004). This dissertation provides evidence from both Mainstream American English (MAE) and African American English (AAE) that the functional heads that license ellipsis must be phonologically overt, which is unexpected under current theories. AAE is particularly important to establish this generalization due to the fact that, although the pronunciation of auxiliary *be* and the possessive 's morpheme is typically optional preceding a full predicate, new experimental evidence reported in this dissertation shows that this optionality disappears in elliptical contexts. This shows that predicate ellipsis can only be licensed in an Agree relation established between a phonologically realized functional morpheme and the lexical phrase it c-commands. I argue that the functional morphemes that license predicate ellipsis must be overt because the [E] feature is not present in syntax prior to the insertion of lexical items bearing this feature.

Phonologically reduced, contracted and zero-marked forms are not appropriate licensors because only the full form of a lexical item bears the licensing feature, in accordance with the theory of Structural Deficiency (Cardinaletti and Starke 1994). Beyond predicate ellipsis in AAE and MAE, this new Agree analysis also accounts for crosslinguistic ellipsis phenomena such as Verb Stranding Verb Phrase Ellipsis in languages like Hebrew, Irish, Swahili and Portuguese. Ultimately, the analysis proposed here entails that predicate ellipsis, in which overtness is required, and clausal ellipsis, wherein the head said to license ellipsis is necessarily silent, are subject to different licensing conditions.



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## CHAPTER 1

### INTRODUCTION

This dissertation focuses on licensing conditions for ellipsis. I propose that a unifying characteristic of ellipsis licensors lies in the need for licensing heads to be morphologically overt, a characteristic that has not been concretely considered in the descriptions by Lobeck (1995) and Merchant (2001). Based on experimental evidence from African American English (AAE), I will show that overtness not only plays a crucial role in the licensing of verb phrase ellipsis (VPE) following Potsdam (1996, 1997), but is integral to licensing of noun phrase ellipsis (NPE) as well. AAE is particularly important to establish the generalization that licensing heads *must* be overt precisely because auxiliary *be*, the copula, as well as the possessive *'s* morpheme (elements occupying functional heads) are all typically optional in this variety. While optionality is well documented in prenominal contexts, experimental evidence shows that this optionality disappears preceding elliptical environments. In other words, ellipsis does not occur if phonologically spelled out material is not present on the appropriate functional head.

This finding is a clear problem for current feature-based theories such as Lobeck's (1995) classic work, and Merchant (2001, 2004) more recently, which seek to unify licensing of verb phrase ellipsis and noun phrase ellipsis, with sluicing and fragment answers. Such accounts must ignore the role of overtness in trying to offer a single characterization. Drawing on Potsdam's work on overtness and VPE, I present a descriptive

generalization, an overtness requirement for licensing of both VPE and NPE (henceforth written Predicate Ellipsis) below:

**The Overtness Criterion for Ellipsis (OCE):** A phonologically overt<sup>1</sup> functional head is required to license complement deletion in Predicate Ellipsis.

We will see that licensing of Predicate Ellipsis requires licensing by an overt functional head, while phenomena like sluicing, fragment answers, and perhaps comparatives (henceforth written Clausal Ellipsis) crucially do not.<sup>2</sup> In light of compelling evidence in support of the OCE generalization, the conclusion we must reach is that there simply cannot be a single licensing condition for both Predicate and Clausal Ellipsis.

Ultimately, I propose that ellipsis is licensed by an Agree relation established between a phonologically realized (overt) functional morpheme that c-commands a lexical phrase.

The theory assumes overt functional morphemes carry the [E] feature, and lexical phrases carry an unvalued E feature, which is valued by the E feature on the functional morpheme. The analysis is formalized below:

---

<sup>1</sup> For simplicity, I will use the term *overt* to describe a phonological realization of a functional morpheme. Thus, functional

<sup>2</sup> I group ellipsis types (Predicate vs Clausal) based on the evidence that they differ in their licensing conditions. One additional reason to believe that we should group VPE and NPE together, and subsequently sluicing, fragment answers, and perhaps comparatives together stems from possible differences in their antecedent conditions (Ross 1969, Merchant 2001, 2004 a.o.)

## Agree<sub>OCE</sub>

Ellipsis is licensed by an Agree relation between functional head morphemes ( $M_F^0$ ) and lexical phrases (LexP).

$M_F^0$  agrees with LexP iff:  $M_F^0$  c-commands LexP<sup>3</sup>

where:  $M_F^0$     [fnc<sup>0</sup>, PHI, E]  
LexP    [*u*E]

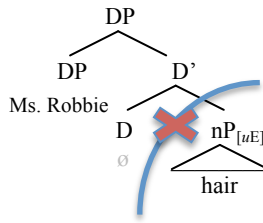
I argue that the overtness of the functional head is crucial to licensing because the head morpheme carries the [E] feature as a part of its lexical entry. Without the functional head morpheme, the [E] feature crucial for licensing is not present and thus cannot enter into the derivation, and no ellipsis can occur. Thus, where Merchant locates [E] on the node, Agree<sub>OCE</sub> assumes it is present on the morpheme occupying the functional head. Under Agree<sub>OCE</sub> licensing of ellipsis occurs as follows:

Ellipsis is licensed when a lexical phrase probes leftward and finds a c-commanding functional morpheme. The lexical phrase, unvalued for E (*u*E), is valued by a functional head morpheme, for each functional morpheme bears [E]. The Agree relation is hence established, and ellipsis is available at PF. For the possessive pronoun, the structure looks as follows:

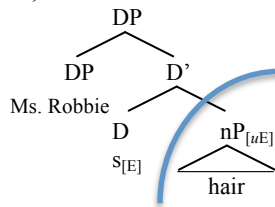
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<sup>3</sup> I have suggested that all lexical phrases are targets for deletion. PP's are controversial. I assume they are lexical phrases, but take the view that PP's undergo rightward movement out of the c-commanding domain, which allows these phrases to be optionally stranded in some elliptical constructions. Beyond PPs, we will see all lexical phrases delete, and I will argue that the optional stranding of a certain elements (*be have*) relate to their structural position, either in a lexical head, or higher, occupying a functional head as a result of raising.

- (0) Whose hair is lovely?  
 a) \*Ms. Robbie'  $\emptyset$   $\Delta$  is lovely.



- b) Ms. Robbie's  $\Delta$  is lovely.



The Agree<sub>OCE</sub> Theory accounts for the constraint on optional morphemes in elliptical utterances in AAE, and is also predictive of Verb Stranding Verb Phrase Ellipsis in languages like Hebrew, Swahili, Irish and Portuguese. The inability of contracted and reduced copula and auxiliaries to license ellipsis in MAE is also consistent with licensing by Agree. Because the Agree<sub>OCE</sub> Theory presents a unified account of licensing of Predicate ellipsis, which hinges on the overtiness of the functional morpheme, it does not account for Clausal Ellipsis, where the licensing head is crucially silent. We can therefore deduce that there simply cannot be a single licensing condition for both Predicate and Clausal Ellipsis.

The dissertation is structured as follows. In the remainder of Chapter 2, I will present an overview of the ellipsis literature, focusing on current claims related to licensing of Predicate and Clausal Ellipsis (Lobeck 1995, Potsdam 1997, Merchant 2001, Aelbrecht



2010). Chapter 3 will focus on the experimental evidence from African American English showing the need for morphosyntactically overt heads for licensing. In other words, while full forms of the copula and possessive morphology seem to license ellipsis, their reduced or phonologically silent counterparts fail as licensors in the same environments. In Chapter 4, I will propose an analysis, Agree<sub>OCE</sub>, that formalizes the OCE generalization and shows how the account predicts a range of crosslinguistic ellipsis facts for NPE as well as VPE. Chapter 5 addresses the puzzle presented by contracted forms of auxiliaries and the copula and shows how the Agree<sub>OCE</sub> is explanatory of these details. Even though contracted forms do have a phonological realization, and thus are more *overt* in comparison to zero-forms, contracted elements still fail to license ellipsis. Following Anderson (2005, 2008) I will assume contracted elements are clitics, and propose three possibilities that show why under Agree<sub>OCE</sub> these contracted clitics fail to agree, and thus cannot license ellipsis. I will suggest that they cannot agree perhaps because i) they fail to c-command targets of ellipsis, ii) they do not enter the derivation in time to be appropriate licensors or iii) these contracted forms do not bear the E feature necessary to agree based on Structural Deficiency (Cardinaletti and Starke 1994). Given that phonological realization is necessary for licensing Predicate Ellipsis, it is the case that the licensing criteria I outline for VPE and NPE must be distinct from requirements for Clausal Ellipsis, wherein the head said to license ellipsis is necessarily silent. Thus, in Chapter 6, I suggest that a movement-based account by Thoms (2010) seems to explain the sluicing data. Chapter 7 presents implications for future work and concludes.

## CHAPTER 2

### FEATURE-BASED ACCOUNTS OF ELLIPSIS LICENSING

#### 2.1 Introduction

Verb phrase ellipsis (VPE), noun phrase ellipsis (NPE), sluicing, and fragment answers (shown in (1)-(4) respectively) are all phenomena in which a predicate can be unpronounced if a salient antecedent can be found in the surrounding discourse. For instance, in the examples below, the bracketed material need not be pronounced as the underlined preceding material is available to contribute its meaning.

- (1) Regina is still sucking her thumb, but I don't think Michael is [~~still sucking his thumb~~].<sup>4</sup>
- (2) Matthew's sweet tea is comparable to Granny's [~~sweet tea~~].
- (3) I know I'll get some Big Red, but I don't know when [~~I'll get some Big Red~~].
- (4) Question: Where are you going?  
Answer: [~~I'm going to~~] Seguin.<sup>5</sup>

While the antecedent conditions for ellipsis require much further study, this dissertation focuses on the syntactic licensing conditions for the above phenomena. In the government and binding tradition, Lobeck proposed that ellipsis was licensed when strong agreement features present on functional heads were feature-checked by certain lexical elements. Merchant recasts Lobeck's analysis under the minimalist framework proposing that a feature, the [E] feature occupying a functional head, is responsible for triggering ellipsis at PF. In order for ellipsis to occur, the feature must be activated via

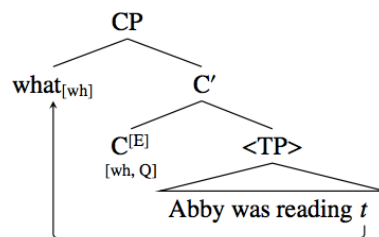
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<sup>4</sup> Throughout this paper I will represent elided material by striking through the text or replacing the text with  $\Delta$ . I assume along with Sag (1976) that ellipsis is PF deletion, and that there is structure in the ellipsis site that is unspoken unlike some who argue that a silent *pro* instead is present (Lobeck 1995 a.o.).

<sup>5</sup> See Merchant (2004) for evidence that fragment answers contain elided sentential elements.

feature-feature matching in the local checking domain or valuing of features of [E] that are specific to the head it occupies. For example, for licensing of sluicing, the specific [E] feature on C, [E<sub>S</sub>], can only co-occur with lexical elements carrying {+wh, +Q}, features appropriate for checking the unvalued {uwh, uQ} features on [E<sub>S</sub>]. Therefore, in (5), the wh-element imbued with the appropriate features to activate [E<sub>S</sub>] moves to the CP specifier where it is now in the local domain for feature-feature matching. Once feature-matching has occurred, [E<sub>S</sub>] is activated and can then give directions at PF for deletion of the complement to be triggered.

(5) Abby was reading something, but I don't know what ~~<Abby was reading t>~~.<sup>6</sup>



Merchant's approach is designed to account for sluicing and ellipsis phenomena like VPE and NPE. All rely on an [E] feature present on the functional head; yet, in VPE and NPE, the feature-matched lexical item is merged in the same node as the relevant [E] feature (6)-(9).

- (6) **VPE** Sharon is singing, and I also think Larry [<sub>I</sub> [<sub>EVP</sub>] **is** [<sub>VP</sub> Δ]].
- (7) **NPE** Kayla's Violent Lips are cooler than [DP Courtney [<sub>D</sub>' [<sub>D</sub> [<sub>ENP</sub>] 's'] [<sub>NP</sub> Δ]]].
- (8) **N<sup>um</sup>PE** I loaned him five figs, and I think I also loaned [DP her [<sub>D</sub>' [<sub>D</sub> [<sub>ENP</sub>] ] [<sub>NUM</sub> **six** [Δ]]]].
- (9) **Sluicing** Vikki was reading something, but I don't know [CP what [<sub>C</sub>' [<sub>C</sub> [<sub>ES</sub>] ] [<sub>IP</sub> Δ]]].

<sup>6</sup> Example and tree structure reproduced from Merchant (2004:670) example (33).

Merchant's theory gives an account of ellipsis licensing that tries to describe data for both sluicing and VPE/NPE phenomena. In Merchant's account, [E] is present on the functional node. This machinery allows Merchant to unify licensing requirements for sluicing, where the functional head is empty, with VPE and NPE, where the head preceding the ellipsis site must be overt. Yet, because of this unification, Merchant cannot support a requirement for overttness, which we will see is crucial for VPE and NPE in AAE and ellipsis in subjunctive clauses in MAE.

Specifically for Merchant, if we assume that in possessive phrases in AAE *–s* and *–ø* are variants of the possessive morpheme, then both should bear the associated [E] feature, [E<sub>NP</sub>], and should thus trigger ellipsis. However, the findings from an experiment with possessives and similar findings for zero-copula to be discussed in Chapter 2 show that *–ø* cannot license ellipsis as Merchant's theory would predict. Beyond data from AAE, mainstream English also shows this penchant for overttness. Though less transparent, we will see in Potsdam's (1997) subjunctive data as well as possessive pronouns in both MAE and AAE in general that overttness is a clear issue that feature-based theories do not address.

## 2.2 The Role of Overttness in Licensing of Verb Phrase Ellipsis

Bresnan (1976) notes that VPs can be missing only when to the right of some visible head, as illustrated in the contrast between (10) and (11).<sup>7</sup>

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<sup>7</sup> Examples reproduced from Bresnan (1976:17).

- (10) John didn't go, but Bill didn't  $\Delta$ , either.  
 (11) \*John didn't go, but Bill  $\Delta$ , either.

She concludes that a finite or non-finite auxiliary must precede a deleted VP. Potsdam (1996, 1997) expands this generalization to account for ellipsis licensing by *not*. As example (12) shows, ellipsis is possible following negation.

- (12) Mary wants to go to the fashion show but her husband might **not**  $\Delta$ .

Much like the auxiliaries in (10)-(11), negation precedes an ellipsis site. Arguing that both negation and auxiliaries occupy head positions, Potsdam (1997) formulates the VP-Ellipsis Licensing Condition.

**VP-Ellipsis Licensing Condition:** An elided VP must be the complement of a morphologically realized head.

The VP-Ellipsis Licensing Condition explains the grammaticality of ellipsis following auxiliaries and modals in (13)-(16), and negation in (17). It also explains the ungrammaticality of example (18) in which no head precedes the ellipsis site.<sup>8</sup>

- (13) I will try the guacamole ice cream if I **must**  $\Delta$ .<sup>9</sup>  
 (14) Boxer auditioned for the choir and his roommate **did**  $\Delta$ , too.  
 (15) A baby llama will go anywhere its mother **has**  $\Delta$ .  
 (16) No one else will support the candidate despite the fact that the mayor **is**  $\Delta$ .  
 (17) You think you are a king but you really are **not**  $\Delta$ .  
 (18) \*John didn't leave, but Mary  $\Delta$ .

One observation described by Potsdam's VP-Ellipsis Licensing Condition is that ellipsis is licensed by a preceding head, which need not be an auxiliary. This is an important departure as much of the ellipsis literature (see Johnson 2001 for a review) suggests that VPE should only be licensed by auxiliaries. (In fact, such work also seeks to describe

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<sup>8</sup> Potsdam's observations for this condition appear to come from Mainstream American English.

<sup>9</sup> Examples (10)-(16) and (18)-(174) taken from Potsdam (1997:534).

types of negation as auxiliary elements, yet, nowhere else in the literature is negation assumed to have auxiliary qualities.)

Crucial to this proposal, Potsdam observes that the head that licenses ellipsis must be “morphologically realized.” He does so by showing the impossibility of ellipsis in subjunctive clauses (assumed to contain a morphologically unrealized auxiliary) in the absence of negation. Zanuttini (1991) observes that subjunctive clauses appear to lack an IP projection due to the fact that these clauses cannot contain an auxiliary (19), and main verbs must also be uninflected for tense (20).

- (19) The police require that the spectators (\*must) stand behind the barricade.  
‘The police require that the spectators stand behind the barricade.’  
(20) He demanded that the successful candidate learn(\*ed) German.  
‘He demanded that the successful candidate be able to speak German.’

Following previous literature (Roberts 1985, Baltin 1993, Lasnik 1995, and Potsdam 1996), Potsdam (1997) suggests that the Infl is present in subjunctive clauses headed by a morphologically independent zero modal. If it *is* the case that any head can license ellipsis, we would expect that ellipsis would occur following the unrealized head in (21). But, this is not the case.

- (21) \*Kim needn't be there but it is imperative that [<sub>IP</sub> [<sub>DP</sub> the other organizers ] [<sub>I'</sub> [<sub>I</sub>  $\emptyset$ ] [<sub>VP</sub>  $\Delta$ ]]].

Instead, ellipsis in the subjunctive clause suddenly becomes available in the presence of a morphologically realized negative element as examples (22) and (23) show.

- (22) Kim needs to be there, but it is better that the other organizers **not**  $\Delta$ .  
(23) A: Should we wake Dad?  
B: No! It's absolutely imperative that you **not**  $\Delta$ .

Here the data show that ellipsis licensing does not depend on the mere presence of a syntactic head. Instead, the head must be filled. Licensing of VPE only occurs to the right of a morphologically overt head—an overt auxiliary in I, or an overt negative element in the head of NegP.

The discussion above illustrates that an overt or morphologically realized head is required to license VPE. For clarity, we will take the term “morphologically realized” to mean *phonologically* realized. Potsdam assumes that subjunctive clauses contain an IP projection (equals TP) headed by a morphologically independent zero in line with many others (See Roberts 1985, Baltin 1993, Lasnik 1995). But if we assume that a silent element can also be defined as a morpheme, then to get to the heart of what Potsdam proposes, we see that a phonologically silent element is barred, and thus, *morphological* realization amounts to the presence of a phonological form. Henceforth, I will state Potsdam’s condition including this definitional change as follows for clarity:

**VP-Ellipsis Licensing Condition<sub>(Revised)</sub>:** An elided VP must be the complement of a *phonologically* realized head.

Potsdam’s account sets up the requirement for phonological spell out quite nicely based on negation in subjunctive clauses in MAE. However, Potsdam’s analysis hinges on the claim that a morphologically unrealized modal exists in the IP head of each subjunctive clause. This claim is not uncontroversial, as Zanuttini (1991) contends that subjunctive clauses lack an IP projection altogether.

A goal of the dissertation is to extend Potsdam’s appeal to spotlight the role of overtness in licensing of VPE to ellipsis phenomena crosslinguistically. I contend also that the same

requirement is necessary in NPE. More specifically, in Chapter 3 we will see that overtness is crucial to licensing where I present new empirical evidence for licensing of VPE and NPE in AAE—a variety of English in which heads that precede VPs (and NPs) can have both phonologically overt or null realizations. In the section to follow, I will briefly show an example of noun phrase ellipsis data in MAE that will further highlight that a requirement for overtness is crucial for licensing of predicate ellipsis and show that even for MAE, there is a requirement for overtness beyond those seen in subjunctive clauses. Ultimately, I will make the case that the best analysis of ellipsis licensing must have overtness as a criterion. Furthermore, if this is the case, the best analysis for licensing cannot be one that also accounts for Clausal ellipsis wherein the licensing head must be silent according to Merchant (2001).

### **2.3 Overtness, Ellipsis and possessive pronouns**

MAE does not have zero-marking in the domain of regular possessive constructions. Nevertheless, the need for an overt functional head can be seen when looking at possessive pronouns in ellipsis contexts in this variety.<sup>10</sup> Consider the following data in MAE. In response to “Whose Kaboodle is that?” both (24) and (25) are grammatical responses, while (26) is not.

- (24) That’s her Kaboodle.
- (25) That’s hers Δ.
- (26) \*That’s her\_ Δ.

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<sup>10</sup> The facts related to possessive pronouns and ellipsis are the same for AAE and MAE.



The OCE generalization correctly excludes (26), while Merchant's analysis incorrectly predicts it to be grammatical. The above data show that the same alternation seen in AAE for all possessives extends to possessive pronouns in MAE. When preceding an ellipsis site, overt *-s* marking is required as in (25). When the possessive pronoun alone precedes a complement, ellipsis is not licensed, which accounts for the ungrammaticality in (26). Thus, for possessive pronouns, the OCE's requirement is met and licensing of ellipsis can only occur with the addition of *-s* morphology in the functional head of the possessive DP.<sup>11</sup> When *-s* is spelled out, ellipsis is triggered. If *-s* is not spelled out, the OCE generalization predicts that the full complement *must* be produced. Without an overt head, ellipsis cannot occur. This analysis correctly rules out (26).

Under Merchant's analysis, on the other hand, an utterance like (26) where ellipsis occurs following a null head is predicted to be grammatical for the same reason sluicing data can be explained. In Merchant's sluicing account, the  $[E_S]$  feature on C can be valued by non-local feature matching the element in the specifier of the CP if it bears  $\{+Wh,+Q\}$ . At PF, the  $[E_S]$  feature is available to license sluicing even though the CP head remains null. This is illustrated in (27). Therefore, by this account, ellipsis is also predicted to occur following a null head in possessive pronouns. We might consider that an  $[E_{NP}]$  feature on D can be valued by the suppletive form of the possessive pronoun bearing  $\{+gen,+pron\}$  though it occupies the specifier of the possessive DP. At PF, the  $[E_{NP}]$  feature in D can be locally checked by *her*, which should then trigger ellipsis though the possessive DP head

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<sup>11</sup> It might be accurate to contend that in these instances, the overt *-s* morpheme that is merged for possessive pronouns may have the sole purpose of ellipsis licensing as genitive case and agreement features are already encoded in the suppletive form. Under this account, the first person possessive pronoun *mine* would be composed of the first person possessive pronoun, *my* plus an  $[E]$  bearing ellipsis licensing feature *-n*. This may be counter evidence for an analysis proposed by Deal (2006), which supposes that *-s* marking in possessive pronouns is a display of double genitive marking.

is null. Thus, under Merchant’s account, ellipsis should occur given these possessive pronouns even if –s morphology is not merged. This incorrectly predicts ungrammatical (28) to be grammatical.

- (27) Her Kaboodle is filled with something, but I’m not sure [<sub>CP</sub> [what] [<sub>C'</sub> [<sub>CES</sub>   ] [<sub>IP</sub> Δ]]].  
{+wh, +Q} {*uwh*, *uQ*}
- 
- (28) \*Of all the Kaboodles in the world, why would you want [<sub>DP</sub> [<sub>DP</sub> her ] [<sub>D'</sub> [<sub>DENP</sub>   ] [<sub>NP</sub> Δ]]].  
{+gen, +pron} {*ugen*, *upron*}

Both the sluice in (27) and the instance of NPE in (28) have the same structure and the same licensing conditions under Merchant’s analysis. Yet the data do not support this claim leaving Merchant’s theory to overgenerate ungrammatical structures.

While MAE does not have pervasive zero-marking like AAE, the necessity for an overt head preceding an ellipsis site is clearly displayed when looking at these possessive pronouns under ellipsis.<sup>12</sup> The requirement for overt –s here offers more support for the OCE generalization. We have now seen that overtness is crucial for describing Predicate Ellipsis, and that theories like Merchant’s, which do not take overtness into consideration, cannot explain all of the data.

In Chapter 4 I will present an analysis of licensing of Predicate Ellipsis that takes into account the importance of overtness in licensing. Though this analysis is in many ways based on Potsdam’s VP-Ellipsis Licensing Condition, we cannot fully adopt Potsdam’s

<sup>12</sup> This paper has mainly dealt with NPE in possessive phrases. However, the OCE can be extended to other instances of ellipsis. For instance, iv. show ellipsis following phonological material in the head of NumP.  
iv. I have three ducks, but she has **four** Δ.

characterization because, even once extended to NPE, it makes the wrong predictions regarding the correct target of ellipsis. Potsdam's characterization predicts that only the complement of the licensing head can be the target for deletion. However, this means that his account does not fully explain data which show that the deletion site does not indeed have to be the complement of the licensing head as in (29).

(29) I should have tried Insanity, and you should have, too.

(30) \*I should have tried Insanity, and you should, too.

If the complement must delete according to Potsdam, we should expect *have* to be deleted here, but in fact, it must be stranded, and deletion as shown in (30) is actually ungrammatical under the reading where *should have tried Insanity* is the antecedent. Therefore, the statement of the VP-Ellipsis Licensing Condition does not make the right predictions with respect to locality.

Aelbrecht's (2009) Agree-based analysis, on the other hand, remedies this assumption making the right claims about the correct relation of a licensor to the target for ellipsis. She uses data like (29) and (30) as the basis for proposing that the licensing head does not simply elide its sister, but targets vP at whatever distance, even if other phrases intervene. Because of this data, Aelbrecht proposes that agree must be the mechanism of licensing based on non-local deletion. Furthermore, she proposes that T is the licensing head and supports this claim with gerund data in (31).

- (31) \*I hadn't been thinking about it, but I recall Diana **having been**.<sup>13</sup>  
 (32) \*Kim having shown up at the game, and Laura not **having** was a surprise.

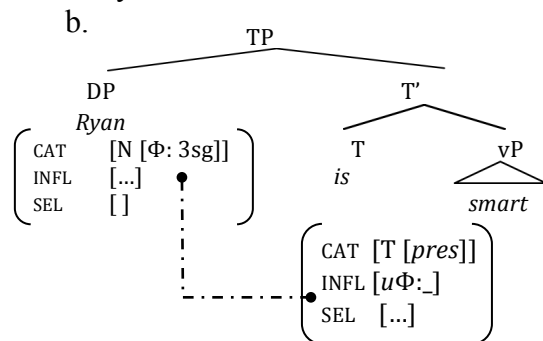
(Aelbrecht 2010:4 ex 22-24)

The claim in the literature is that gerundive forms do not have a TP layer. Unlike subjunctive clauses which some believe bare a null T, gerunds are assumed to be without the functional phrase in general. Thus, Aelbrecht takes the ungrammaticality of (31) and (32) as evidence that ellipsis cannot occur in the absence of T, and thus, T alone is responsible for licensing.

Aelbrecht cashes out licensing via Agree in the following way. She assumes that heads carry feature bundles such as below in (33). For a phrase like *Ryan is smart*, in (34) uninterpretable PHI features are checked by interpretable ones in INFL.

- (33)  $\begin{pmatrix} \text{CAT} [\dots] \\ \text{INFL} [\dots] \\ \text{SEL} [\dots] \end{pmatrix}$   $\rightarrow$  specifies the category of the head  
 $\rightarrow$  uninterpretable INFL-features have to be checked  
 $\rightarrow$  specifies the selectional criteria of the head

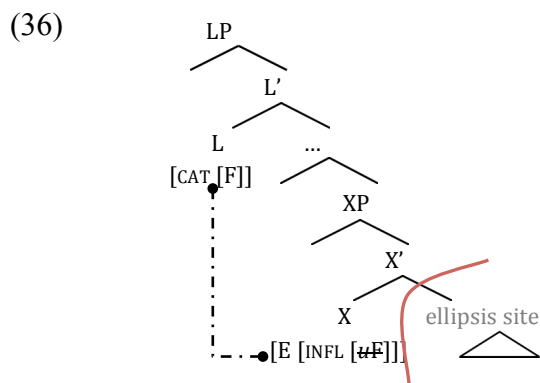
- (34) a. Ryan is smart.



<sup>13</sup> Aelbrecht presents (31) as ungrammatical, however, a convenience sample of native MAE speakers judge this to be grammatical. I will take (32) to be grammatical which will be important for my characterization of Agree<sub>OCE</sub> in Chapter 4. For now and for simplicity, I am presenting the examples from Aelbrecht (2010:4) simply as a means of describing the data and judgments that shaped this analysis.

Aelbrecht suggests that this treatment of Agree works for Merchant's (2001) [E] feature. She suggests that [E] has an unvalued F-feature to be checked against the licensor. If the [E] feature identifies an interpretable F, it can be checked via Agree to license ellipsis.

$$(35) \quad E \begin{pmatrix} \text{CAT} & [E/X] \\ \text{INFL} & [uF] \\ \text{SEL} & [X] \end{pmatrix} \begin{array}{l} \rightarrow [uF]\text{-feature, to be checked against the licensor} \\ \rightarrow \text{specifies the head on which [E] can occur} \end{array}$$



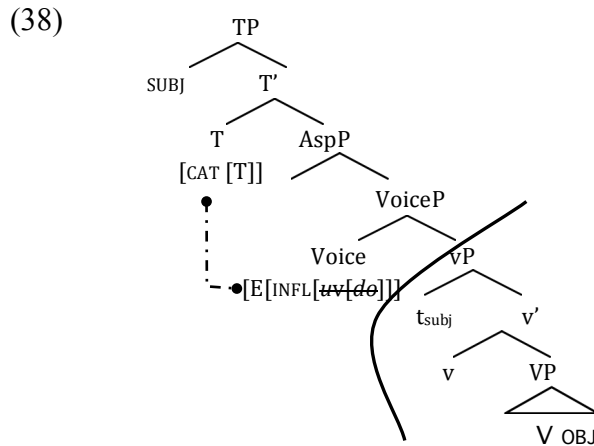
→ L = licensor of category F  
[E] has an uninterpretable [F]-feature that has to be checked against L via Agree.

Thus, since Aelbrecht suggests that VPE is licensed by T, she presents an example for licensing of VPE by T (38). She suggests that T is the licensor that is F-marked, and according to her dissertation work (Aelbrecht 2009), little vP is the ellipsis site in English. She goes on to propose that in VPE an [E] feature is unvalued for T, but when a T is merged, *u*T is checked via Agree, and ellipsis can then occur. In the example, the licensing head for VPE is T and the ellipsis site is vP (Aelbrecht 2009, 2010). The specifications for the [E]-feature for VPE from this analysis are presented in (37) and the ellipsis process is sketched in (38).<sup>14</sup>

<sup>14</sup> Examples (37) and (38) reproduced from Aelbrecht (2010:5) handout "VP Ellipsis and VP Fronting. The Common Core."

(37)

$$\text{EvPE} \quad \left( \begin{array}{cc} \text{CAT} & [\text{E/Voice}] \\ \text{INFL} & [\text{uT}] \\ \text{SEL} & [\text{Voice}] \end{array} \right)$$



By these examples (and with crosslinguistic data in her dissertation) Aelbrecht shows that ellipsis requires agreement with the head T, but crucially, ellipsis can be licensed from afar, i.e. outside of a sister relationship between the licenser and its complement.

Specifically, Aelbrecht suggests that an agree analysis for licensing of VPE is ideal for it can both outline the types of heads that license ellipsis, pick the right target for deletion, and describe a relation between the two that can account for nonlocal licensing.

Therefore, while Potsdam's account gave us evidence for the role of overtness,

Aelbrecht's account makes the right predictions with respect to locality.

While the agree relation allows Aelbrecht to account for non-local licensing, there are two major limitations of Aelbrecht's analysis that help us see that even this account is not sufficient to account for all examples of VPE in English. First, this account assumes that T is the only head able to establish the Agree relation and license VPE. This would

predict that in sentences without a TP projections ellipsis should not be available.

Gerunds are assumed not to have a TP projection, and with examples (31) and (32) reprinted below in (39) and (40), Aelbrecht shows that ellipsis cannot happen in gerund clauses because no T is present to establish the proper agree relation required for licensing. Yet, while the sentence in (40) is horrendous all around, the variant in (39) where *been* is stranded is consistently judged grammatical by native Mainstream American English speakers. The data in (39) are updated to reflect MAE judgments.

- (39) I hadn't been thinking about it, but I recall Diana **having been** ~~thinking about it~~.  
(40) \*Kim having shown up at the game, and Laura not **having** ~~shown up~~... was a surprise.

This suggests that even in the absence of T, ellipsis is licensed. The gerund itself cannot be the licensor, as the ungrammaticality of (40) makes apparent. However, due to the grammaticality of (39) where non-finite *be* is stranded, we can conclude that *been* must license here, even while occupying some other functional head. Similarly, licensing only by T cannot be the case as we have seen that Potsdam's important conclusions are based on the ability of Neg to license. Furthermore, some like Zanuttini (1991) suggest that subjunctive clauses do not even have a TP projection. Thus, if we were to assume were treatment, we would have even more compelling evidence that even in the absence of TP, Neg can license ellipsis. Similarly, King (1970) among others have proposed that contracted elements cannot license ellipsis, which is displayed by (41). However, ellipsis *is* licensed when *not* is merged.

- (41) \*Caedrynn's eating Keto, and Krysten's *e*, too.  
(42) Caedrynn's not eating Keto, and Krysten's not *e*, too.

Thus, the appropriateness of licensing with *not* further verifies that the head of Neg is a licensing head. These examples clearly show that Aelbrecht's analysis wherein T is assumed to be the only licensing head is not maximally explanatory.

The second limitation of Aelbrecht's account is that it makes no explicit claims about overtness. Thus, because the [E] feature is associated with T, Aelbrecht's account inaccurately predicts that we should expect ellipsis to happen in subjunctive clauses under Potsdam's characterization where a zero modal is assumed to occupy T. However, we have seen that ellipsis does not occur in subjunctives without negation. Thus, without a distinction between silent and phonologically realized morphemes, Aelbrecht's theory falls short. Furthermore, not accounting for phonological realization is fatal to any theory that must account for the African American English data that we will see in more detail in Chapter 3 where ellipsis licensing by full copula and auxiliaries occurs, but licensing by zero elements (which are assumed to have the same functional features) is blocked.

Therefore, Aelbrecht's analysis makes the wrong predictions in claiming that T alone is the licenser of VPE as the subjunctive and gerund constructions show, but proposing that an agree relation is necessary is spot on in based on the ability of agree to account for non-local licensing. Potsdam's account, on the other hand, correctly captures the integral role of phonological realization of heads in licensing and predicts that licensing should occur with T and Neg elements, but does not build in non-local deletion. The right analysis must combine the overtness requirement and non-local deletion. Furthermore, it must also be able to implicate in licensing other functional heads beyond T in this



domain—Neg and Infl for example. I also that the right analysis should also capture licensing of noun phrase ellipsis (NPE).

In Chapter 4 I present such an analysis that i) outlines the class of phonologically realized heads that can license ellipsis ii) identify the class of elements that are targets for ellipsis, and iii) propose an agree relation that picks the right relation between licensor and target in both VPE and NPE constructions.

Ultimately, I will contend that phonologically realized functional morphemes are licensors and lexical phrases are the targets of deletion. I propose that ellipsis is licensed when an Agree relation is established between the licensor and the target of ellipsis.

Morphological exponents of functional heads bear an E feature (reminiscent of Merchant 2001) in their feature constellation. The E feature, much like in Merchant 2001, is composed of both semantic and syntactic information. The semantic information relates to achieving the right antecedent conditions and interfaces chiefly with LF. Syntactic information, at issue here, specifies that an unvalued E feature must establish an Agree relation with an item bearing E in its domain to be valued. For example, just as *am* has associated PHI and tense features, an interpretable E feature is also within it's feature bundle. Lexical phrases contain an unvalued E feature that must enter into an Agree relation by feature checking. If *uE* on a phrase probes c-commanding projections and finds an interpretable E feature, checking occurs, and ellipsis is now available at PF.<sup>15</sup>

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<sup>15</sup> There are some instances where ellipsis *must* occur such as with possessive pronouns. At this point, I will not suggest that the establishing of an Agree relation forces ellipsis. Instead, I will suggest that ellipsis is a viable option when the relation is established, but PF operations underlie whether deletion occurs ultimately.

The major contributions of this analysis lies in the ability to predict that all phonologically realized functional heads can license ellipsis, which accounts for the data showing that phonological exponents of T, Neg, and Aux are viable licensors. Furthermore, the need for morphological expression is captured and *motivated* when one assumes the [E] feature is introduced by such head morphology.<sup>16</sup>

The Agree analysis proposed in Chapter 4 accounts for crosslinguistic data for predicate ellipsis. Chapter 5 engages with the possibility that Clausal Ellipsis such as sluicing, fragment answers and possibly comparatives require different licensing conditions than what I propose for Predicate Ellipsis.

While the MAE examples of subjunctive clauses and possessive pronouns expose the shortcomings of the purely feature-based accounts of licensing, and we have seen evidence from Potsdam's account that phonological realization is crucial to licensing, in the chapter to come I present even more compelling evidence from AAE regarding the crucial nature of overt functional exponents for licensing Predicate Ellipsis. Empirical evidence from AAE not only confirms Potsdam (1997, 1998) for VPE, but also gives me even more evidence to make the case that the overtness of functional exponents is also an important requirement underlying the licensing of NPE.

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<sup>16</sup> The analysis is compatible with DM if you assume the features represented in the syntax in an elliptical utterance includes E, and full morphemes make up the ultimate expression.

## CHAPTER 3

### MOTIVATING OVERTNESS: OPTIONALITY AND ELLIPSIS IN AAE

#### 3.1 Introduction

In this chapter I give an overview of optionality in AAE to demonstrate that the alternation between overt and null heads is consistent with the claims that the overtiness of functional heads is crucial to ellipsis licensing (OCE generalization). Many processes in AAE display optional phonological realization in surface representations (Labov 1969 etc). The optional processes at issue in this chapter are grammatical variability in overtly producing copula/auxiliary *be* as in “*Kayla (is) sixteen*” or “*Courtney (is) traveling*”, and overt marking of possessives as in “*Granny(’s) thrift store addiction*”, which are the focus of Experiment 1 and Experiment 2 respectively. In these examples, the copula preceding *sixteen* and *traveling*, and the possessive morpheme preceding *dairy addiction* are both completely optional i.e. subject to zero-marking in AAE. However, preceding a null complement, Labov (1969) reported that zero-marking is extremely rare. Based on Labov’s early observation, it seems that zero-marking preceding an ellipsis site should be disfavored if not ungrammatical in AAE. At present, no empirical investigations have been conducted to specifically evaluate Labov’s claim. Here in, I present an elicitation experiment to confirm the observational claim. I show that the copula and possessives in AAE must be overt phrase finally with data elicited from 33 AAE speakers from the Mississippi Delta. I ultimately make the case that the distribution of zero-copula and zero-possessives is constrained phrase finally due to requirements on ellipsis licensing. Namely, I assert that ellipsis licensors must be morphosyntactically full.

### **3.2 Background and Optionality in African American English**

AAE is a variety “that has set phonological, morphological, syntactic, semantic, and lexical patterns” (Green 2002:1) and is spoken by many but not all African Americans in the United States. Most of the research done on this variety has focused on its use by those in urban areas (Wolfram 1969, Labov 1972, Baugh 1979, Myhill 1988, Rickford et al. 1991, Fletcher 2002, Weaver 2000 and Charity 2007); however, populations of speakers also live in rural areas, particularly in the south, where this variety has its origin. In this paper, I will report on data from a speech community in the northwest corner of Mississippi called the Mississippi Delta.

For many years, optionality in AAE has been a topic of great interest (Labov 1969, Wolfram 1969, Baugh 1983, Rickford 1991 etc) as many different surface realizations for a specific semantic interpretation are available. What is crucial to this paper, however, is the fact that AAE allows for optional realizations of certain functional heads—heads that are crucial for ellipsis licensing—while MAE does not. Therefore, this variety is an ideal lab for testing the importance of overtness for licensing ellipsis because the elements such as the copula, auxiliary *be*, and possessive *-s* are all functional heads that display optional phonological realization in AAE.

#### **3.2.1 Auxiliary and Copula in AAE**

Labov (1969) showed that copula and auxiliaries in AAE can be optionally produced without altering the meaning of the utterance as seen in (43) below. All data presented in Sections 2-4 will be given in AAE unless otherwise specified.

(43) Joe (is) so fast he (is) gonna get a ticket.

In (43) the copula and the auxiliary can be overtly expressed, or unproduced (zero-marked henceforth). Many sociolinguists have tried to identify particular constraints on this optionality, many times linking optionality to social factors. Cukor-Avila (1999) reported a lower frequency of overt copula in informal settings. Labov (1969) also showed that certain syntactic environments affected the rate of “deletion”, as it occurred most preceding “gonna” and verb phrases, and was less likely before noun phrases. Zero-marking in AAE is confined to 2<sup>nd</sup> and 3<sup>rd</sup> person forms and only in the present tense. This explains the ungrammaticality of (44) and (45).

(44) I \*(am) fine.

(45) Yesterday he \*(was) running.

Regardless of variation in frequency of optionality, zero-marking of auxiliaries and the copula in AAE in 2<sup>nd</sup> and 3<sup>rd</sup> person forms occurs in the same environments where contraction has been shown to occur in MAE (Labov 1969, 1972). For example, Labov suggested that in (46) zero-marking in AAE and contraction in MAE are permitted while neither can occur in (47).

- (46) a. That's not a man. (MAE)  
b. Dat ø not no man. (AAE)<sup>17</sup>

“That is not a man.”

- (47) a. \*Tell it like it's. (MAE)  
b. \*Tell it like it ø. (AAE)

“Tell it like it is.”

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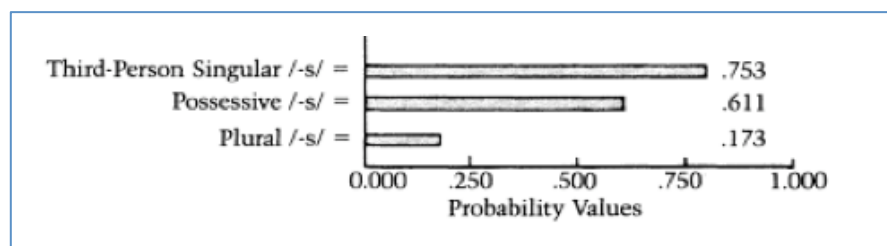
<sup>17</sup> Examples adapted from Torrey (1983:629).

Similarly, King (1970) showed that contraction is *blocked* preceding a gap or ellipsis site in MAE as (47) shows.<sup>18</sup> In much the same way, we can see from (47) that the constraints on contraction in MAE correspond to the environments in which zero-marking is prohibited in AAE. This correspondence suggests that AAE and MAE share some structural parallels. Additionally, given such structural parallels between zero forms and contraction, we might expect them to behave similarly with respect to the overtiness requirement. Namely, that neither zero-marking nor a contracted auxiliary should precede an ellipsis site. We will discuss the behavior of contracted elements and ellipsis licensing in subsequent chapters.

### 3.2.2 Optionality in Possessive Marking in AAE

Along with optional realization of Infl elements, morphosyntactic markers, specifically –s, have been described as being completely optional in AAE. The distribution of zero-marking of third person singular –s, possessive, and plural morphology are shown below in Figure 1 from Baugh (1983).

**Figure 1: Zero-marking of –s morphology reproduced from Baugh (1983).**



<sup>18</sup> Thank you to Jeroen Van Craenenbroeck for pointing out this literature. Also note that the constraints on contraction in MAE proposed by King (1970) also hold for contraction in AAE.

Both possessive and third-person singular –s morphology have rates of zero-marking above 50%. This has led some to claim that neither of these morphemes are underlying in AAE. Overt marking in these instances is treated as a borrowing from MAE. Wolfram (1969) made this claim for possessive marking because for some groups of speakers, overt-marking was almost categorically absent as compared to others speakers. Baugh (1983) showed that this marking also varied with interlocutor. More zero-marking occurred when AAE speakers spoke to familiar interlocutors who were also AAE speakers, than to unfamiliar AAE speakers, as well as unfamiliar non-AAE speakers. Furthermore, Smitherman (1977) contended that –s marking is variable in AAE because the morpheme is redundant. She proposed that the relative position of the possessor preceding the possessee alone yields possessive meaning in AAE.

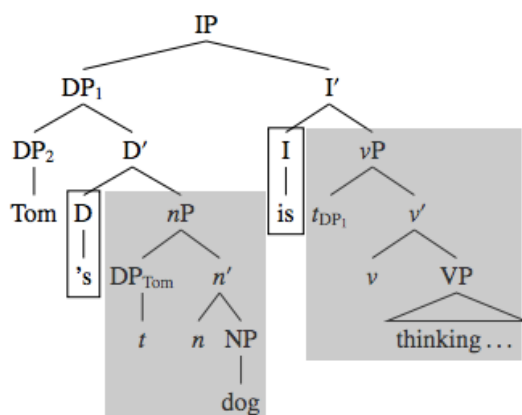
Nonetheless, I will assume that possessive marking in AAE has one form, an overt 's, that is optionally spelled out at PF. Both surface forms, -s and zero, are available in typical possessive phrases, as well as in recursive and phrasal structures represented in (48) and (49) respectively.

(48) I tasted her sister('s) kid('s) puppy('s) food.

(49) I found [the girl in the flowing pink gown]('s) hair-do to be subpar.

I also assume that -s morphology is merged in the head of a possessive DP following Abney (1987). In NPE, the 's merged in D is much like the auxiliary in the T head that licenses ellipsis of its complement.

(50) Hillary('s) dog (is) thinking deep thoughts much less than [Tom's  $\Delta$  is  $\Delta$ ].<sup>19</sup>



In (50), NPE and VPE are both licensed due to morphologically realized material in the head position. The structural similarity makes clear the notion that licensing of both types of ellipsis follows the same pattern. So far we have seen that the D and I heads in AAE can be unpronounced preceding overt material, but what must be tested is whether such unrealized heads can license ellipsis.

### 3.3 Optionality and Predictions for Ellipsis

In the previous section we have seen the pervasiveness of optionality of syntactic and morphosyntactic elements in AAE. However, the question of concern to this paper is whether the optionality of these elements affects their ability to license ellipsis. The OCE generalization states that morphologically realized heads license ellipsis. Therefore, it predicts that when producing utterances with VPE and NPE in possessive phrases, we

<sup>19</sup> In (50) the structure of the bracketed fragment is given with rectangles marking the phrasal head, and triangles surrounding the general region available for deletion. I posit that possessive DPs contain a little *n* functional head based on work by Toosarvandani (2010). In observing no possessive morphology in Northern Paiute, Toosarvandani posited that the little *n* head had the function of providing a possessive relation in possessive phrases in absence of overt possessive morphology. We might assume that the same structure exists in AAE as the little *n* head may also allow for possessive interpretation without overt morphological spell-out of 's prenominaly.



should not see zero-marking by AAE speakers. Thus, the following utterances should be ungrammatical if the OCE generalization is accurate.

- (51) \*Courtney (is) tall and I think Kayla \_\_ Δ.  
‘Courtney (is) tall and I think Kayla is.’
- (52) \*Regina ain’t sitting by the barn with Abbey, but Michael \_\_ Δ.  
‘Regina isn’t sitting by the barn with Abbey, but Michael is.’
- (53) \*Granny(‘s) piece of cake is usually bigger than Matthew\_ Δ.  
‘Granny’s piece of cake is usually bigger than Matthew’s.’

In Experiment 1, the OCE generalization is tested with ellipsis in auxiliary and copula constructions. Experiment 2 uses the same methodology but tests whether zero-marking of possessive phrases is also constrained preceding an ellipsis site. The OCE generalization predicts that an overt functional head should precede every ellipsis site. Thus we will have evidence to support the OCE generalization if zero-marking before ellipsis occurs at a significantly lower rate than zero-marking before an overt complement.

### **3.3.1 Experiment 1: Testing The OCE and Verb Phrase Ellipsis**

#### *Procedures*

To test the predictions of the OCE generalization, a sentence repetition task modeled after Potter and Lombardi (1990, 1998) was employed to elicit data. Potter & Lombardi’s experiment demonstrated that the surface syntax of a sentence to be recalled is not represented in short term memory, but instead, participants rely most on memory of lexical items and overall sentence meaning from the prompt when reconstructing an utterance. This repetition task was deemed most effective for the purposes of this

experiment because it allowed for elicitation of somewhat rare constructions. Due to the finding that the surface syntax is not simply repeated verbatim but is, in a sense, a novel regeneration by subjects, it is clear that this methodology should lead to the naturalistic elicitation of the surface syntax necessary to test the hypothesis.

### 3.3.2 The Task

Potter and Lombardi's 1990 study was initiated to explore the hypothesis that immediate recall of a sentence involved regeneration of the conceptual representation (paraphrase meaning), using words that were recently activated. This experiment was proposed to refute the idea that short-term recall is little influenced by semantic relations, but instead that it shares some properties of long-term recall. In all experiments, participants either saw or heard a sentence like (54) and were asked to repeat it.

(54) The knight rode around the *palace* searching for a place to enter.

Before or after that sentence, they would be presented with a list of words during a distractor task. Half of the items contained unrelated words, while half contained a lure word that was synonymous with a word in the prompt sentence. For example, given the sentence in (54), the word-list might contain the word *castle* as a synonym lure for the target word *palace*, which appears in the sentence to be repeated. Potter and Lombardi predicted that if meaning played no role in short-term recall/verbatim memory, the recent activation of a synonym should not affect how participants repeat the utterance. Results from the experiment revealed that the synonym lure word did in fact appear in productions significantly more when it had been a part of the word list than

spontaneously. This finding supports the hypothesis that regeneration of a sentence does not draw on surface syntax of the prompt, but instead relies on recently activated lexical items that are combined in ways that give a meaning approximating the previous utterance without regard to surface syntax. This method was deemed ideal to test the OCE generalization because of the need for participants to produce very specific and sometimes rare constructions without majorly biasing the surface form of their utterances.

The selected task also needed to be difficult enough to bias participants to produce utterances consistent with the zero-marking displayed in AAE. Participants were mostly apt code-switchers. This means that participants also had a command of a more standard variety of English with rules disfavoring zero-marking. Therefore, it was possible that this more standard variety would be used in the formal speech context of this experiment. Nonetheless, in the pilot phase, this methodology was determined to be effective for diminishing affects of language accommodation. The presence of the community consultant and the difficulty of the task reduced participants' ability to code-switch, which gave rise to the optionality in productions desired for this experiment. Given that the participants in Potter and Lombardi did not produce the syntax of the prompt verbatim suggests that the task would not bias participants toward any given syntactic representation. This task was also necessary due to the fact that the elliptical constructions imperative to this experiment have been shown to be extremely rare in spontaneous speech samples alone (Labov 1969, Torrey 1983). The current study adopted an auditory presentation method to avoid biasing participants with orthographic representations not representative of AAE, which does not have a written system.

In the experiment, subjects were presented with pre-recorded sentences with overt copula and auxiliaries to be repeated like the ones in (55) and (56).

(55) Sally's husband is not going to stop drinking coffee, but Sally **is** [going to stop drinking coffee] after the new year.

(56) Perry's organ was old and rusty, and the one at the church **was** [old and rusty] too, but it still sounded good.

In half the prompts, the bracketed material was elided, and no ellipsis occurred in the other half. If it is the case that ellipsis is licensed by overt heads, then zero-marking should occur more frequently in non-elliptical repetitions than in repetitions preceding an ellipsis site. In Experiment 1, past tense auxiliaries and copula, which can never be zero-marked in AAE, were used as a baseline for participant error by which to examine zero-marking in elliptical contexts that do not reflect licit uses of the grammar. Therefore, zero-marking before ellipsis sites should occur as infrequently as zero-marking of past tense auxiliaries and copula in either environment.

### **3.3.3 Participants**

A convenience sample of 33 Black participants between the ages of 18 and 30 were recruited and paid for participation in this study. Participants selected for the experiment were largely from the Delta region of Mississippi, a homogenous speech community. These subjects were judged to be speakers of African American English as this is the predominant language of individuals from this speech community.

## Materials and Design

Altogether 40 sentences were given. There were 24 experimental items, 16 filler sentences, and 2 initial practice items. Of the 24 experimental items, participants were given 4 of each sentence type indicated in Figure 2 below with both copula and auxiliary targets:

<b>Figure 2: Stimuli system for auxiliary and copula <i>be</i> items.</b>		
<b>Tense Condition</b>	<b>Ellipsis Condition</b>	<b>Example Sentence</b>
+Past	-Ellipsis	<i>I was running, and I also think John <b>was</b> running.</i>
+Past	+Ellipsis	<i>I was running, and I also think John <b>was</b> Δ.</i>
-Present	-Ellipsis	<i>I am running, and I also think John <b>is</b> running.</i>
-Present	+Ellipsis	<i>I am running, and I also think John <b>is</b> Δ.</i>

There were 4 conditions (past +ellipsis, present +ellipsis, past -ellipsis, present -ellipsis) counterbalanced across 8 versions of the experiment.<sup>20</sup> Item order was randomized for each participant, and any participant saw only one version of each sentence.

A distractor task also followed each sentence. The distractor consisted of a presentation of 5 novel words. Participants were then asked to identify whether a word given by the experimenter was a part of the list. The correct answers consisted of an equal number of “no” and “yes” responses.

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<sup>20</sup> Experiments 1 and 2 were run together; the items for one experiment served as the fillers for the other.

### 3.3.4 Procedure & Apparatus

A consultant from the Mississippi Delta community administered each experiment.<sup>21</sup>

After reading the directions to participants, 2 practice prompt/distractor pairs were given.

If the participant demonstrated understanding of the task by successfully responding “yes” or “no” to the distractor task then repeating the initial sentence, the participant was allowed to continue on to complement the experimental items.

Each item was played over a loud speaker. After the five novel words were given, the community consultant asked if a specific word was in that list of words. After the participant responded, they were asked to repeat the initial sentence. An example of a full item is below:

**Prompt:**

Item: Nobody is going to sing at the old folks home for Christmas, even though the mayor **is** [going to sing at the old folks home for Christmas].

Distractor:    Pop                      Soda                      Chicken                      Cow                      Region

**Consultant:** Was “cow” in this list of words?

**Participant:** Yes/No

**Consultant:** Please repeat the sentence.

**Participant:** [Repetition]

Both prompts and distractor task were pre-recorded by the community consultant and presented to participants via a large speaker. Participants were recorded using a head-mounted microphone.

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<sup>21</sup> I owe a huge debt of gratitude to Carmen Christmas for help developing Delta-appropriate stimuli, recording stimuli, recruiting participants and for facilitating each experiment.

### 3.3.5 Scoring

Sentences were transcribed and analyzed using Praat. If the presence of overt or zero-marking was questionable, spectrogram analyses in Praat were used. Once transcribed, the data were coded.

All 33 Delta participants were included in the analysis. Scorable data consisted of utterances in which the target portion of the utterance (the second aux/cop construction) was produced. Non-scorable items consisted of those in which the participant did not complement any intelligible utterance. All items for this experiment were scorable. Trials in which a participant did not produce a target structure were marked as containing a major distortion and were also excluded from the analysis (27% of the data). These data included productions in which a non-auxiliary or copula construction was produced in the target area, when the target auxiliary or copula contained negation (*he wasn't*), do support, and in *so* constructions or other utterances which may contain an unpronounced predicate that is not in its canonical position after the verb.<sup>22</sup>

Finally, the past tense sentences were initially included as a control variable that would be compared to zero-marking preceding ellipsis sites. Thus, in the event that our comparison of zero-marking preceding ellipsis and zero-marking preceding overt complement yielded statistically significant results, we could further confirm that zero-marking before ellipsis was ungrammatical, not just rare, by comparing it to instances of

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<sup>22</sup> In constructions like example i. and ii. the ellipsis site is more commensurate with Clausal Ellipsis and thus are not of the ellipsis type being considered in this paper.

i. Joe is a fan of football, *so* is his grandmother too but only on Superbowl Sunday.  
ii. Joe is tall but I don't know *how* tall John is.

Example i. has the structure of a comparative due to the inclusion of degree morpheme *so*. Similarly, ii. is seen to involve Wh-movement, and thus is ellipsis of the clausal type. Thus, these data were not included in the data to be considered for this experiment.

zero-marking of the past tense auxiliary. However, a post-hoc examination revealed that instances of tense shifting, which occurred in 6% of the data, could not be controlled for in this task. The presence of tense shifts as in (57) made interpreting the tense of zero-marked elements as in (58) precarious. Because tense is zero-marked in (58), there is no way of knowing whether the unrealized element should be interpreted as past tense (making the construction ungrammatical as in a.), or whether it has been tense-shifted to the present (making the structure grammatical, as in b.).

- (57) Farrah **was** going to the carnival because Gayle **is**.  
 (58) The mayor **was** going to sing this Christmas if Samantha \_\_ gonna sing.  
 a. \* “The mayor was going to sing this Christmas if Samantha was gonna sing.”  
 b. “The mayor was going to sing this Christmas if Samantha is gonna sing.”

Because a reliable calculation of the rate of zero-marking of past tense could not be computed, it was determined that a comparison between zero-marking preceding ellipsis to erroneous instances of zero-marking in the past tense could not be assessed. Though the tense measure did not prove to be an effective control, our ability to evaluate zero-marking preceding ellipsis sites versus preceding overt complement was unhindered.<sup>23</sup>

### 3.3.6 Results

556 tokens were evaluated in Experiment 1. 2% of these utterances contained zero-marking in the target environment (11 total items). Despite the even distribution of prompts with and without ellipsis, participants produced ellipsis in the target utterance

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<sup>23</sup> Future work may benefit from using data from Mainstream American English (MAE) speakers on the same tasks as a control for this experiment. MAE speakers should overtly mark auxiliaries 100% of the time preceding ellipsis and full complement. Thus, any zero-marking preceding an ellipsis site could be used as a baseline for potential error to be compare to the number used by AAE speakers. If ungrammatical in AAE, the amount of zero-marking preceding ellipsis for both AAE and MAE speakers should be comparable.



more frequently than utterances with overt complement in the target area (348 elliptical vs. 208 without).<sup>24</sup> Figure 3 shows the distribution.

<b>Figure 3: Frequency of overt marking given VPE context.</b>		
	Zero-Marked Aux/Cop	Overt Marked Aux/Cop
-Ellipsis	10	198
+Ellipsis	1	347

Though there were few instances of zero-marked utterances, the results pattern in the same direction as predicted by the OCE generalization. 10 zero-marked auxiliary or copular elements were found in non-elliptical environments like (59) as compared only to 1 instance of zero-marking preceding an ellipsis site (60).

(59) If your mom is happy, then the rest of the family \_\_ happy.

Prompt: If your mom is happy, then the rest of the family is happy, too.

(60) After every (unintelligible) said Honey Boo Boo Child was obnoxious, and her mother \_\_, too.

Prompt: After every pageant win, Honey Boo Boo Child was obnoxious, and some say her mother was, too.

The data show that participants produced overt marking more frequently in elliptical environments than when the target complement was produced. Results of a logistic mixed effects regression show that this finding is statistically significant,  $p < .01$ . The model is summarized in Figure 4. The logistic mixed effects model was selected because the dependent variable, whether marking was overt or zero, was binary. The independent variables were condition and linguistic environment. The *Condition* variable included information about the tense of the prompt and whether or not ellipsis was given in the prompt. The *Linguistic Environment* variable related to whether the participant produced

<sup>24</sup> Elliptical utterances outnumbered the instances with full complement in this data set. This is an important finding as it is possible that elliptical elements have not been readily found in previous studies using spontaneous speech because ellipsis is somehow dispreferred by AAE speakers in these contexts. This result suggests that ellipsis is a clear part of the AAE grammar and thus elliptical examples from previous data may just be rare or perhaps they were treated as having the same properties as non-elliptical constructions.

ellipsis in the target environment.

<b>Figure 4: Results of logistic mixed effects regression for marking and ellipsis for auxiliary/copula in AAE.</b>				
	Coefficient	Standard Error	Z-score	p-value
Intercept	2.99	0.32	9.34	< 2e-16***
+Ellipsis	2.86	1.05	2.72	0.007**

Significance code: \*\*\* equivalent to  $p < 0.001$ , \*\* equivalent to  $p < 0.01$  and \* equivalent to  $p < 0.05$ .

### 3.3.7 Discussion

The results of Experiment 1 are consistent with the OCE generalization. Instances of zero-marked responses occurred 92% of the time when preceding an overt complement, while zero-marking before ellipsis sites occurred only once, or in 8% of zero-marked targets. These results were statistically significant. The results are even more impressive when we consider that there were more utterances containing ellipsis in the data set, leaving greater opportunity for zero-marking if it were allowed (63% of the data; 348 of 556 items). The results followed our prediction that AAE speaking participants would produce fewer, if any, instances of zero-marking preceding an ellipsis site due to the need for a phonologically overt head in ellipsis environments. Despite the fact that only 2% of data included zero-marking, these data were enough to produce statistically significant results that confirm that the functional head preceding ellipsis sites for auxiliary and copula must be overt.<sup>25</sup> In other words, even in a variety with optionality in copula and auxiliary realization, it is ungrammatical for zero-marking to occur preceding an ellipsis

<sup>25</sup> Lack of zero-marking may be due to certain confounds related to the stimuli as well as factors related to the testing environment. First, the prompts were all given with overt copula and auxiliaries, which may have biased participants toward greater overtness in general. To avoid this, it may have been more appropriate to contract auxiliaries and copula in the present tense to make overtness less salient leaving room for contraction or zero-marking.

Aside from the prompts, the experimental environment (largely a university setting), which differed from that of the pilot study (the consultant's residence), may have biased participants toward more MAE repetitions. AAE does not have a written system and thus is not readily associated with academic settings. Therefore, it may be the case that the participants, mainly recruited and tested at a local university, were bias toward using the speech they would reserve for the classroom, a more standard variety closer to what is written, during the experiment. As noted before by studies like Cukor-Avila (1999), being unfamiliar with the interlocutor as well as in a formal setting have both been shown to have higher rates of overt marking for AAE speakers. Therefore the formality of the setting also have played a role in the relative amount of zero-marking compared to other studies of auxiliary and copula optionality.

site as predicted by the OCE generalization. Experiment 2 gives even more robust support for the OCE generalization by evaluating optionality in possessive –s marking given NPE in AAE.

### **3.4 Experiment 2: Possessive Marking and The OCE Generalization**

The procedure for Experiment 2 was exactly the same as in Experiment 1. Experiment 2 was implemented to test whether the OCE’s requirement for an overt functional head preceding an ellipsis site could also be seen in instances of NPE. In testing possessive phrases, we predict that zero-marking in possessive constructions should be ungrammatical preceding an ellipsis site in the same way that zero-copula were not permitted in instances of VPE in Experiment 1.

#### **3.4.1 Methods**

##### *Participants*

Data from the same 33 participants was elicited for this experiment. All participants had also participated in Experiment 1.

### *Procedure*

The procedure for Experiment 2 was the same as that in Experiment 1. There were 2 conditions (+Ellipsis, -Ellipsis) counterbalanced across 8 versions of the experiment. In this version of the task, participants heard sentences with possessive phrases containing an initial clause to establish a proper NP antecedent. The second clause was the target portion in which the NP is a candidate for ellipsis. There were two conditions, one in which the prompt included a full possessive DP, and one in which the prompt contained ellipsis.

<b>Figure 5: Stimuli conditions for Experiment 2, possessive phrases.</b>	
Condition A: Pos, -Ellipsis	Rhianna’s cat is mean and fiesty, so I’ll keep Mike’s cat anyday.
Condition B: Pos, +Ellipsis	Rhianna’s cat is mean and fiesty, so I’ll keep Mike’s $\Delta$ anyday.

Like Experiment 1, each item consisted of a prompt, distractor task, then a request for the participant to repeat the initial utterance. An example of a full item can be seen below:

**Prompt:**

Item: Rhianna’s cat is mean and feisty, so I’ll keep Mike’s any day.

Distractor: Yoyo      Turtle      Mote      Kite      Rally

**Consultant:** Was “mote” in this list of words?

**Participant:** Yes/No

**Consultant:** Please repeat the sentence.

**Participant:** [Repetition]

All prompts included overt possessive marking in all environments. Therefore, any zero-marking from participants could not be a result of any bias from the prompt. Both prompts and distractor task were pre-recorded and presented to participants via a large speaker. Participants were recorded using a head-mounted microphone.

### 3.4.2 Results & Discussion

In Experiment 2, 319 scorable possessive targets were produced. Zero-marking of the possessive occurred in 16% of the data. Of the zero-marked utterances, 75% of items preceded overt complement, while 25% of zero-marked items preceded ellipsis sites (numerical totals in Figure 6A).

<b>Figure 6A: Frequency of overt marking given NPE context.</b>		
	Zero-Marked Pos (X)	Overt Marked Pos (-s)
-Ellipsis	39	140
+Ellipsis	13	127

These percentages support the predictions of the OCE generalization in that participants produced zero-marked possessives more frequently when preceding overt complement than prior to an ellipsis site. Results of a logistic mixed effects regression show that this finding is statistically significant,  $p < .01$ . The model is summarized in Figure 6B.

<b>Figure 6B: Results of logistic mixed effects regression for marking and ellipsis in AAE possessive phrases.</b>				
	Coefficient	Standard Error	Z-value	p-value
Intercept	2.16	0.54	4	7.64e-05***
+Ellipsis	1.42	0.44	3.23	0.00148**

Significance code: \*\*\* equivalent to  $p < 0.001$ , \*\* equivalent to  $p < 0.01$  and \* equivalent to  $p < 0.05$ .

For this experiment, marking type served as the dependent variable, and the independent variables were condition and linguistic environment (elliptical or non). As in Experiment 1, subject and item were the random effects. In evaluating the claim that zero-marking preceding an ellipsis site should be ungrammatical, one might raise the question of why 13 items in this data set were zero-marked in that environment. In analyzing the data, I chose a very conservative coding scheme that worked against my hypothesis. If zero-marking of the possessive could yield a plausible utterance, then it was coded as zero-

marked, even if both a possessive or non-possessive readings were possible as in (61).

(61) The bully \_ lunchbox was fine after the fight but Calvin\_ wasn't, wasn't fine.<sup>26</sup>

For example, the utterance in (61) was coded as zero-marked but ambiguous given the fact that two readings are plausible. First, *Calvin* could be interpreted as a zero-marked possessor meaning *Calvin's lunchbox*. One could also interpret this phrase as a non-possessive DP meaning the boy, *Calvin*, was not fine after the fight. If we do not consider these ambiguous items, only 4 productions out of 13 are clear cases of zero-marking preceding ellipsis where, unlike (61), no ambiguity existed. See Figure 7 for these utterances.

**Figure 7: Instances of zero-marking preceding an ellipsis site from Experiment 2.**

1. Make sure you check your burger because last week Keyshia\_ didn't have meat on it. (JGL8)
2. Make sure you check your burger because last week Keysha\_ didn't have any ketchup on it something. (KSL4)
3. Kevin\_ car is so nice but Mary\_ breaks down almost every workday. (KSL4)
4. Shantel's hair is always jet-black, but Katie always has three colors. (MBL3)

Zero-marking preceding an ellipsis site was virtually unattested. The four examples in Figure 7 are the only naturally occurring counter examples in the data set against the OCE generalization, which predicted that participants would not produce tokens where zero-marking preceded an ellipsis site. These data would be concerning if such examples

<sup>26</sup> Example (61) represents a verbatim transcription of an utterance elicited from a participant, which includes repetition of the negated past tense copula. In this example it was deemed plausible to interpret *Calvin* as either a zero-marked possessor with the meaning "Calvin's *lunchbox*... wasn't fine" or a simple non-possessor with the meaning, "*Calvin*... wasn't fine". This is in contrast to examples in which including a different final element would lead to no ambiguity, rendering a possessor reading (and thus zero-marking) unlikely. For instance, if "Calvin... wasn't *talking*" was produced in the second clause, it is improbable that the speaker was intending to zero-mark in this instance as the verb could only refer to an action of the animate subject, Calvin.

occurred frequently in the speech of one or more speakers (a potential case for speaker variation). However, zero-marking preceding an ellipsis site occurred only once in 4 of the 3 speakers' productions, and twice in the last speaker's productions. If this were a categorical difference, we might have expected that one or more speakers might consistently produce variation of marking preceding the ellipsis site. This is not what we see in the data and thus does not weaken support for the OCE generalization.

Furthermore, Zero-marking in these examples could also be due to phonetic environment. In each of these examples, zero-marking preceding an ellipsis site occurs following a vowel final proper noun. It could be the case that lack of overt production has a phonetic explanation related to vowel final nature of each possessor. The following example is evidence of overt possessive marking preceding an ellipsis site when following a consonant final possessor (*Susan*). We know that this participant is predisposed to zero-marking given that initial zero marking of the possessive is produced preceding the predicate *car* in the first clause. Inclusion of possessive marking resurfaces in the environment of ellipsis following a proper noun that ends in a consonant.

(SEL2: 16N1B) Kevin \_ car is always nice but Susan's always break\_ down on workdays

Perhaps either the perception of –s marking or the degree of production naturally differs following vowels vs. consonants. Or potentially consonant cluster reduction is at play across the phonetic boundary in these examples. Whatever the case, because of their rare

nature in the data set, these counter examples do not seem to pose a threat to the integrity of the OCE generalization.

Overall, in Experiment 2, the OCE generalization was supported as zero-marking of a possessive phrase preceding an ellipsis site occurred much less frequently than in non-elliptical constructions. This result matches that seen in Experiment 1, but may even be more robust due to higher rates of zero-marking in the data set. Both results point to the validity of the OCE generalization in AAE as a morphologically overt functional head was more frequently produced preceding an ellipsis site despite the possibility of optionality elsewhere in the grammar.

### **3.5 Structural Similarities DP/TP and The Nature of Zero**

One contribution of this dissertation is to add a focus on linguistic environments where optionality is *constrained* to the conversation about zero-morphemes in AAE.

Experimental evidence from this chapter shows us that ellipsis is one environment that requires phonological realizations for possessives, as well as the auxiliary and copula.

And while we know that zero-forms cannot license ellipsis in AAE, it behooves me to state some possibilities for what exactly I take such zero forms to be. Are they full forms rendered silent at PF? Are they silent clitics occupying syntactic positions but whose phonological forms are marked by their absence? Should zero-forms of the copula be considered identical to contracted forms? This section will grapple with the possibilities a bit. The proposal I will arrive at will be based on an assumption that underlies much of the dissertation. That assumption is that the DP and TP projects are structurally and



functionally similar, and for this reason, we should see that licensing criteria for both NPE and VPE should be consistent. In this section, I will first give evidence for the structural similarities of DP and TP projections, which influence how I characterize zero possessives, then lay out my assumptions about the nature of zero-elements and ellipsis in the DP domain. Next, comes a discussion of zero auxiliaries and copula in AAE vs. contracted auxiliaries and copula in the TP domain as it relates to ellipsis licensing. Based on accounts by Labov (1968, 1969), Bender (2001), and Dechaine (1993), I find that zero auxiliary and copular elements share the same linguistic environments as contracted forms in all constructions relevant for ellipsis, and thus, I decide to treat zero forms as I will contracted forms. I will assume both zero and contracted forms are clitics that share the same syntactic position.

### **3.5.1 Structural Similarities: DPs and TPs**

In this section I will introduce some literature that describes structural similarities between IPs and DPs. This assumption is crucial because it underlies my motivation for proposing a unified licensing analysis for VPE and NPE in this dissertation. Furthermore, assuming said structural similarity also informs the possessive structure I adopt which includes a little *n* in the possessive DP that parallels little *v* within TP projections. I will argue that the little *n* provides a theta-like relation between the possessor and possessee that corresponds to the theta relation between the DP subject and little *v* within TP. By doing so I show that little *n*, not 's can be responsible for a possessive interpretation sans 's-marking. Assuming structural similarity will also be important for understanding the similarities in ellipsis licensing conditions in TPs and DPs.

### 3.5.2 Clause-like Properties of the DP

Abney's (1987) seminal work pointed out the need to assume a sentence-like structure for NPs due to many similarities between noun phrases and sentences. He saw genitive case assignment by NP without a morphological head as a clear issue for X' theory as it posed problems for typology and could not account for data in numerous languages. For example, English sentences like Poss-ing gerund constructions such as in (62) could only be analyzed as headless NP structures, which was the common assumption previously.

(62) [NP [NP John's [VP [V building [NP a spaceship]]]]

Abney thus proposed that in order for the argument structure of nouns to be compatible with data like in (63), a DP with a D head should be assumed to dominate every NP.

Further evidence from Turkish gerund constructions also illustrated his point. Because nouns do not take accusative complements, Abney's "DP-analysis," seemed explanatory of such data as an inflectional element related to the nominal could take the VP as a complement, not an N projection. Data in (63) and (64) are evidence that DPs provide the inflectional head of N in a way that allowed noun phrases to fit into X' theory like other clauses such as IPs and CPs.

ENGLISH

(63) [John's building a spaceship] angered me.

TURKISH

(64) Halil'-in kedi-ye yemek-ø ver-me-dig-i  
Halil-GEN cat-DAT food-ACC give-NEG-ING-3sg  
'Halil's not giving food to the cat'

(Underhill 1976)

The work of Carstens (2000) further supports structural similarities between DPs and IPs as she assumes that a little nP functional projection within the DP precedes the noun phrase mirroring the little vP that precedes VPs (Chomsky 1995, 1998, 1999). Many such as Ritter (1991), Carstens (1991), Picallo (1991), and Siloni (1997), have argued that a mid-level functional phrase must intervene between DP and NP. Carstens uses data from Italian to show that the  $\theta$ -like and agreement related properties allowed by little nP are explanatory of these data. Radford (2000) also demonstrates the appropriateness of postulating a little nP structure in his analysis of movement of an N head to raise to n<sup>o</sup> in forming periphrastic genitives like “the return of the president to Cincinnati.” The structural similarities of DP and IP have been well established for Abney’s data, and to substantiate the postulation of a little nP projection.

Specifically, Toosarvandani (2011) suggests that the presence of the little nP phrase in possessive structure is explanatory in possessive data from the Northern Paiute language. He also makes the claim that his findings from Northern Paiute possessives also confirm the ideas of structural similarity between TP and DPs. In the next section, I will explain this analysis and show how it can be extended to account for optional possessive marking in AAE.

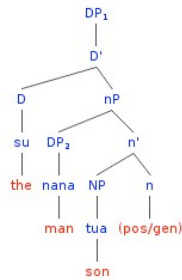
### **3.5.3 Possessive DP Structure**

Carstens and Radford’s work highlight the appropriateness of presuming that a little nP functional phrase is present in the DP structure. Toosarvandani shows that little nP is necessary to explain possessive data specifically. His analysis of possessives in Northern Paiute assumes that the little n head introduces a possessor in a possessive description. In

the following example, no possessive morphology appears on the possessor, but by virtue of the little n head, a  $\theta$ -like possessive relationship is said to be ascribed between the possessor in Spec-DP and the possessee in the NP.

- (65) Su=nana                      tua    wadzi-mia.  
        DEF.NOM=man    son    hide-go  
 ‘The man’s son ran away.’ (elicitation, MS, BP32-2-s6)      (Toosarvandani, 2011:3)

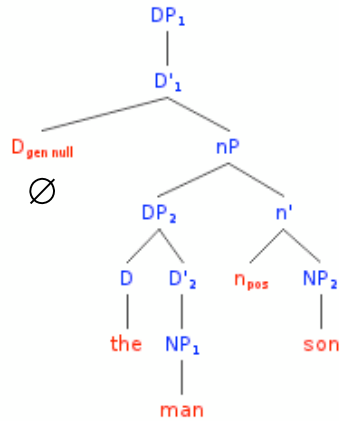
(66)



In (66) we see that the possessor and possessee are adjacent and no morphological marking occurs on either. Instead, Toosarvandani suggests that the little n head provides the possessor relation in absence of any overt genitive marking. Genitive case is assigned by the D head, though no morphology is spoken there. This lack of morphology despite an ascribed possessive relationship looks similar to what we find in the corresponding DP in AAE—(67).<sup>27</sup>

<sup>27</sup> Note that little n is shown to be head final in Northern Paiute, which explains its position to the far right in (6).

(67) I see the man<sub>1</sub> son.



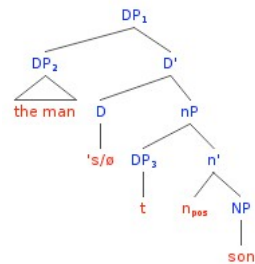
This suggests that inflectional marking may be generally unnecessary for possessive interpretation due to the presence of the little n head. Thus, in AAE the little n head intervenes between the specifier and complement of nP. Crucially, I assume that possessive morphology, either 's or 'ø in AAE, occupies the D head position. That possessive marking is actually merged under D has been previously asserted by Abney (1987) and will be a crucial assumption for the analysis I will propose for obligatory marking.

This little nP structure appropriately captures the data for possessive marking in AAE. To further connect the DP and TP structures, I will also assume that the possessor DP moves to the specifier of the overall possessive DP just as subjects generated in the specifier of VP ultimately move to the specifier of TP.

The final analysis of possessive DPs in AAE is as follows: A little n head is responsible for possessive interpretation in possessive DPs in AAE in absence of overt marking.

Interestingly, overt marking is still required in elliptical utterances.

(68)



To this point, we have seen empirical evidence that that zero-marking in both the TP and DP domains fail to license ellipsis. This begs the question: if we consider both ‘s and zero to occupy D, then how might we understand the difference in licensing capabilities between zero and full allomorphs despite similar semantic information and syntactic structure. In thinking specifically about licensing in the DP domain, I believe that we can look to the TP domain for clues. Specifically, given the structural similarity, we should be able to glean from examples of VPE when T is not initially realized as a means of understanding what might be going on in the NPE.

Let’s take *do*-support with main verbs as a relevant example. In (69), ellipsis is not licensed by a main verb. However, ellipsis only becomes available when *do* is inserted in T as in (70).

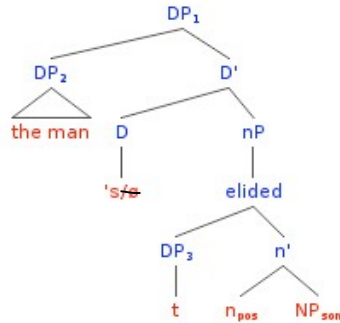
(69) \*Joe will taste the food if Mikey tastes *e*.

(70) Joe will taste the food if Mikey does *e*. (Potsdam, 1997)

To extend this account, I will assume that like T, a phonologically overt D head must be merged for possessee ellipsis. Therefore, when ‘s is merged in D in a possessive DP, ellipsis of the possessee is licensed. If the D is unexpressed, however, no ellipsis can occur and the sentence is thus ungrammatical under the possessive reading. I will assume that the possessor DP moves to the highest DP specifier before ellipsis occurs, just as

subject DPs move to SpecTP from positions in the VP. Just as movement of the subject is assumed to occur before deletion in VPE, I assume the same in the DP domain. This accounts for the fact that subjects in TP or possessive DPs are not deleted along with the predicates they moved from.

(71)



In this section I have proposed that the licensing conditions for ellipsis within both IP and DP hinge on phonologically overt head licensors. I have shown that while optionality of possessive marking in AAE can be explained structurally (given proximity to the n head), overt marking is obligatory when the possessee is elided because overt material in D is necessary for licensing of ellipsis.

### 3.5.4 Possessive Pronouns

Above I have shown that the presence of a relational head n allows for a possessive interpretation regardless of overt or zero-marked prenominal possessors in AAE. I have also shown that licensing conditions for ellipsis drive the Overtness Criterion for Ellipsis generalization (OCE) as 's-marking is required to head D when ellipsis occurs, because only an overt morphology in D can license ellipsis of the possessee. In the next section I

will show that the structure and analysis outlined above accounts for the strange behavior of possessive pronouns and ellipsis in both AAE and MAE as well.

### 3.5.5 The Deal Data Puzzle

In a 2006 snippet, Deal presented two analyses of prenominal possessive pronouns in English. She is concerned with why 's genitive marking occurs with non-pronominal possessives shown in (72)a., but utterances with prenominal possessive pronouns like in (72)b. are ill-formed.

- (72) a. Moore's/\*Moore book  
b. your/\*you's/\*your's book

Based on Huddleston and Pullum (2002), Deal assumes that possessive pronouns are inflected genitives with the addition of a genitive case marker 's (your+s), but a deletion rule at spell-out operates on the whole form to delete 's due to a haplology restriction—a stipulation against double marking the genitive in prenominal cases. Deal suggests that dialects in which individuals can say things like *your all's hat* show that the genitive inflection and genitive 's marking are somewhat separate properties as the presence of all bleeds the deletion rule and double marking does occur. The *your all's hat* data also testify to the fact that possessive pronouns do not head D. This is an important distinction in that some take the fact that possessive pronouns never co-occur with determiners as evidence that they *must* share the same syntactic position based on the ungrammaticality of (73). If one takes that view, then given ellipsis we would have to assume that the suppletive form including –s morphology is inserted in D (*hers*). However, it would



suggest that entirely different mechanisms underlie ellipsis with pronouns (lexical selection and merge) versus ellipsis with phrasal and non-pronominal phrases (movement to DP). This would also assume that in elliptical utterances it is merely a coincidence that –s morphology occurs both after a possessive pronoun as in (75), but also after a DP containing that possessive pronoun as in (76). I believe in line with Abney (1987) that possessive pronouns do not head D and take sentences like (76) and (77) as striking evidence that pronouns share syntactic distribution with clausal and non-pronominal possessive DPs.

- (74) \*I saw **your the** hat.
- (75) You saw my hat, and I saw **yours**.
- (76) You saw my advisor's hat, and you saw **your husband's e** .
- (77) You saw my advisor's hat, and I saw **your all's e**.

We will see in the next section that pronominal possessive pronominal forms in AAE are like those in the mainstream variety, which suggests that Deal's approach will explain the requirement against 's pronominally. Deal does not, however, address double marking of possessive pronouns in elliptical contexts. To that end, I will show that like non-pronominal possessors, the OCE generalization best describes the need for phonological realization of D in elliptical utterances in possessive DPs.

### 3.5.6 Extending Deal's analysis to possessive pronoun formation in AAE

In many ways, AAE possessive pronouns are quite similar to those in MAE, with the exception of the third plural form. The paradigm of possessive pronouns in AAE can be found in 0.

(78)

<b>Figure 8: Paradigm of Possessives in AAE</b>		
Possessives Pronouns in AAE (Green , 2002; Mufwene, 1998)	Prenominal <sup>28</sup>	Phrase Final <sup>29</sup>
1st singular	my hat	That's mine <sup>30</sup>
2nd singular	your hat	That's yours
3rd masculine	his hat	That's his
3rd feminine	her hat	That's hers
3rd generic	its hat	That's its
3rd plural	they hat	That's theirs
1st plural	our hat	That's ours

I argue, like Deal, that the pronominal forms in the table in 0 are lexical items selected at spell-out based on the appropriate constellation of phi and case features that share distribution with non-pronominal possessives items. This would allow us to understand that when 3rd person singular phi features and a genitive case feature are present in syntax, *they* is the pronominal form selected in AAE—it just so happens to be homophonous with the non-possessive form. Given Deal's observation, I propose that syntactic processes in the DP mirrors the TP. In a TP with a pronominal subject, T licenses case on the subject in the specifier of VP, and valuing of agreement features occurs from the vP specifier to T. When the subject of a sentence is a pronoun, the appropriate pronominal form is selected based on the features valued between T and vP. The TP process is shown in (79)A. I argue that the processes I will argue for in the possessive DP is in (79)B.

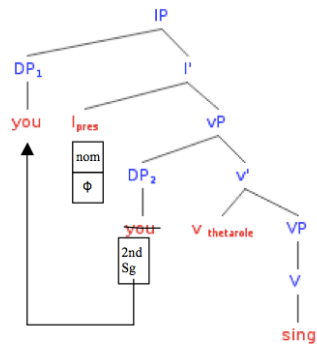
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<sup>28</sup> Unattested pronominal forms are as follows: \*me\*you\*he, him, \*she, \*it, \*them, \*us/we

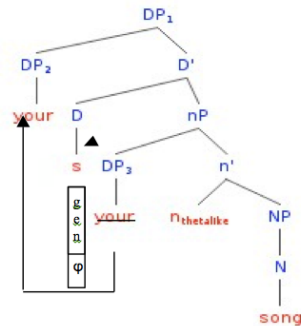
<sup>29</sup> Unattested phrase final forms are as follows: \*my, me, \*your, you, \*he, \*her, she, \*it, \*theys, they, \*ou

<sup>30</sup> *Mines* is a phrase final form that is attested in AAE, but its use varies by regions and speech community, and perhaps may be a use associated mostly with informal speech registers.

(79) A.

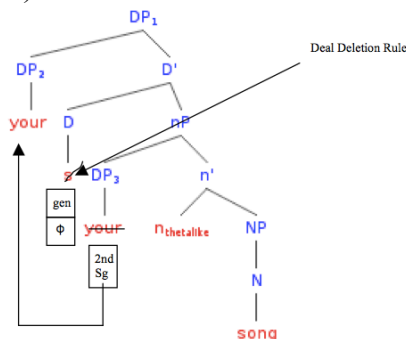


B.



Thus, for possessive DPs with possessive pronouns, the genitive case feature licenses case on the possessor, and then as the phi features are valued, the appropriate lexical item is selected. For the second singular pronoun, for example, we would expect *your* to be the available form selected based on the features present in syntax. The presence of the genitive case feature also allows for overt material such as 's to be merged in D. I will then assume the possessive pronoun in SpecnP moves to the specifier of the possessive DP. At this stage, the material available in syntax is *your+s*. The form would then be subject to Deal's deletion rule at PF, at which point +s is deleted, and ultimately, *your* would be spelled out prenominally at surface structure as in (80).

(80)



Deal's analysis supports facts about prenominal possessive pronouns in AAE. It does not, however, account for possessive pronouns in elliptical constructions. I will make the case

that the deletion rule cannot occur in elliptical constructions because what would be deleted is necessary for licensing according to the OCE generalization.

### 3.5.7 The OCE Generalization for NPE with Possessive Pronouns

Above I argued that phonologically overt material must head the possessive DP to license the ellipsis of a possessee. I believe the case of possessive pronouns is even stronger evidence for the OCE generalization due to the fact that genitive is already marked on the possessive pronoun and thus further genitive morphology in D only in elliptical environments can only be attributed to an effect brought on for licensing. Recall the statement of the OCE generalization below:

**The Overtness Criterion for Ellipsis (OCE):** A phonologically overt functional head is required to license complement deletion in Predicate Ellipsis.

The OCE requirement thus arbitrates the realization of overt morphology in D in possessives with possessive pronouns. I contend that we should see the fact that ellipsis occurs only when a phonologically overt morpheme is spelled out in the head of a possessive DP following a possessive pronoun as evidence that merging an overt element in D should be seen as a function of ellipsis licensing.<sup>31</sup> Figure 9 shows the process of deriving the possessive DP in (81) from a sentence like “That dog is yours.”

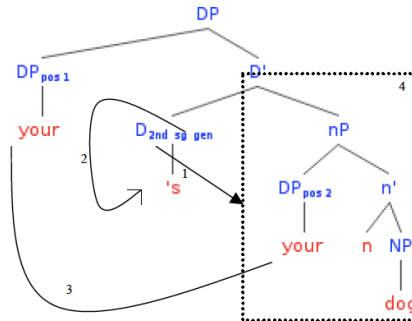
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<sup>31</sup> So far, this stipulation is purely descriptive. We will see an analysis that derives these facts in Chapter 4.

**Figure 9: Deriving Ellipsis with Possessive Pronouns**

- i. 2nd singular features + a genitive feature in D would allow for selection of the lexical item *your* to occupy the specifier of nP
- ii. 's is merged in D to satisfy appropriate phi and genitive features in syntax
- iii. The possessor DP moves to the specifier of the possessive DP
- iv. The possessee must elide due to head licensing granted by a phonologically overt D based on the OCE generalization.

(81)



The only case that may not seem to comply with this analysis is that of first person singular. If we assume 's is the only form that can head D, then this would predict that (82) should be grammatical when the variant in (83) is the appropriate elliptical form.

(82) \*That dog, it is mys *e*.

(83) That dog, it is mine *e*.

However, historical evidence from Berg (2011) suggests that *-n* also used to be a genitive form marker (hence, the existence of forms like *yourn* and *hishn* in earlier Englishes).

Following this literature, I argue that both *-s* and *-n* are morphological allomorphs that can express +gen in D in possessive constructions. Thus, when phi features for first person singular and a genitive case feature are present in D, *my* is the pronominal form selected, but *-n* is the possessive marker that is merged in D. Thus, the correct string in (83) can be formed (*my+n*). This possessive pronoun data quite nicely shows that overtness is crucial to licensing of NPE, so much so that overt morphology never surfaces except for in elliptical utterances.

Thus far, I have given empirical evidence for a requirement for overt licensors for ellipsis based on the failure of zero-elements in T and D to license ellipsis in AAE. I have used this evidence as a springboard to discuss ellipsis in possessive DPs. More specifically, I have made the case that DP projections are similar in their syntactic structural and featural constellation to TP projections as phi features in D (like those in T) when combined with case features were shown to help select the appropriate pronominal form. A deletion rule was required to initiate haplology, while the OCE generalization was used to describe obligatory ellipsis when a phonologically overt D head is merged in elliptical constructions with possessive pronouns.

### **3.6 Alternative Accounts: Do it really be about Ellipsis Licensing?**

While the OCE generalization and subsequent analysis I have sketched for NPE in possessives captures the AAE ellipsis data for NPE with possessives and, by extension, VPE with copula and auxiliaries, one could make the case that there may be other possible explanations for the failure of ellipsis with zero elements. Perhaps this alternation is not at all related to the process of ellipsis, and instead, the merging of overt elements in elliptical contexts is constrained by other linguistic factors unrelated to licensing of ellipsis in the syntax. In this section, I will explore alternative accounts that describe overtness as i) a function related to the recoverability of case ii) a cognitive requirement to aid in sentence processing—a psycholinguistic account or iii) a prosodic phenomena. Ultimately, some alternatives fail, and others are compatible with the claim that overtness is necessary for ellipsis licensing specifically.

### 3.6.1 Recoverability of Case

Much literature refers to 's in possessive structures as genitive case marking (Quirk 1985 etc). This appears to be warranted as its presence corresponds with a possessive interpretation in the absence of genitive inflection for non-pronominals. Therefore, one might consider that overt 's-marking is required to establish a possessor relationship when the possessee has been elided. In other words, 's marks the possessor giving the interlocutor the clue that the possessee must have been elided and that they should interpret miss. This seems appropriate when considering non-pronominal possessives in elliptical constructions such as (84), but not for ellipsis with possessive pronouns as in (85). If obligatory merging of overt morphology in D in these constructions stemmed from a need to overtly mark genitive case, we would expect constructions such as (86) to be grammatical given that the suppletive form already expresses genitive case (See Figure 8 for the full paradigm of possessive in AAE).

- (84) That picture, well, it's Ms. TC's *e*.
- (85) That picture, well, it's hers.
- (86) \*That picture, well, it's her *e*.

Yet, in (86), we see that the 2nd person female possessive pronoun *her* is already lexically marked with genitive case, yet ellipsis does not occur. Given our previous analysis we know that haplology for prenominal possessive pronouns mitigates against double marking when the possessee is present, yet, in elliptical contexts, it seems more plausible that the 's is necessary not for general case-marking purposes but specifically for ellipsis licensing. Some like Postal (1969) suggests that in DP final position a long form of the genitive is needed including lexical and 's-marking or some longer suppletive

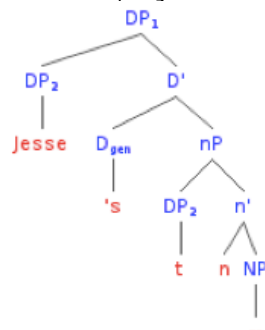
form (my:mine). However, Postal’s observation describes the facts but not why the long form is chosen here. Thus, I suggest that the fact that long forms occur only with ellipsis is not a coincidence.

### 3.6.2 Psycholinguistic Account

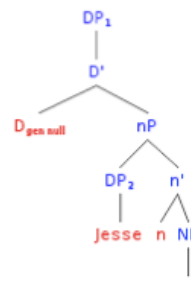
This account predicts that overt realization of the ’s genitive helps interlocutors process a possessive interpretation when the NP has been deleted. Is there evidence to support the possibility of computing the DP structure in (87)b with zero-marking for the sentence “That hat must be Jesse’s” as opposed to the canonical DP structure in (87)a? Instead, we might expect that a listener would not build the complex structure in (87)b in the event of zero-marking as nothing seems to indicate that “Jesse” should be a possessor in a string “That hat must be Jesse”. It is more likely that a speaker would build a non-possessive DP as in (87)c, one without a little n within a little nP shell to contribute a possessive relation to Jesse.

(87) This hat must be...

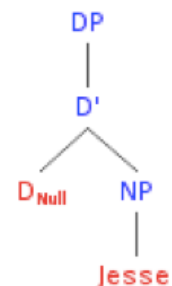
a) [Jesse’s<sub>DP<sub>poss</sub></sub>].



b) [Jesse<sub>DP<sub>poss</sub></sub>].



c) [Jesse<sub>DP</sub>].





I am not sure how one would test this psycholinguistic hypothesis, but based on my intuitions about the production of the phrase final possessive, I put forth that the structure for possessives includes the nP projection where the little n head contributes the possessor relationship to the phrase in its specifier. Without such a feature and some evidence of nP projection, a DP like in (87)c cannot be interpreted as possessive DP. This approach also explains why null marking is licensed in prenominal position as the following noun indicates that a more complex structure has been built, and the intervening little n head is sufficient to allow the possessive interpretation of a phrase like “Jesse hat” without overt marking.

If “That must be Jesse” is always parsed as if Jesse were not a possessor regardless of whether his hat is relevant in the discourse, then we can assume this utterance is ill-formed because it would create a minimal attachment garden path. The Minimal Attachment Principle in Garden Path Theory (Frazier, 1982) suggests that interlocutors “[a]ttach incoming material into the phrase-maker being constructed using the fewest nodes consistent with well-formedness rules of language”(Frazier, 1982:180). This would suggest that no possessive DP should be generated in a sentence like “This must be Jesse”, while in the sentence containing “Jesse’s”, a possessive structure is postulated by the interlocutor owing to ’s possessive morphology, which could give crucial information to the listener that a possessive DP should be posited. If zero-marking in this environment always leads the listener to an infelicitous parse of the sentence, we might assume that overt marking is necessary without the object to indicate to the listener the type of DP to construct.

This analysis is not incompatible with the ellipsis account. Processing costs may come as a result of an inappropriate configuration for ellipsis licensing. In other words, we must recognize that the gardenpath-ing that results from lack of 's morphology is an artifact of a requirement for licensing in the syntax. Similarly, this processing account seems also to suggest that obligatoriness of overt marking is related to recoverability of *deletion*.

Nonetheless, it seems that while the OCE generalization describes the elements needed for well-formedness of ellipsis in possessive constructions, the processing account may demonstrate the need for such restrictions in the syntax to allow for specific interpretations.

### 3.6.3 Prosodic Structure account

Lastly, one could posit that phrase-final 's is required as a stipulation within Spell-Out that exists to force 's production at the phrasal boundary of the DP. Similar stipulations have been proposed by Selkirk (1995) for focus morphemes in phrase final environments. Data related to the copula in AAE show a similar requirement for spell-out of otherwise optional material phrase finally as in (89)c.

- (88) a. She is tall.  
b. She's tall.  
c. She ø tall.
- (89) a. Look at how tall she is.  
b. \*Look at how tall she's.  
c. \*Look at how tall she'ø.

Copula are otherwise optional in AAE except phrase finally. In a similar way, contraction of the copula in mainstream English ((88)b and (89)b) shares the same distribution (Labov 1969). Interestingly, neither deaccenting nor contraction are licensed for a phrase

final function words like *has* in (92) according to Selkirk. She suggests that phrase final function words must appear in their strong form.

- (90) a. She has as much money as he has.
- (91) b. She 'əz as much money as he has.
- (92) c. \*She has as much money as he' əz.

Characteristically, strong forms have i) prosodic words status, ii) must bear a pitch accent, and iii) cannot be a clitic. She later argues that elements with pitch accents must also head a foot, and only strong forms can head a foot.

A question that arises is whether we can apply Selkirk's metric to try and explain the requirement of phrase final 's-marking in possessive DPs. However, to do so we would have to assume that 's is a strong form of the genitive. That assumption does not hold because, by definition, Selkirk assumes strong forms cannot be clitics, but must be able to bear a prosodic accent. Similarly, by Selkirk's analysis, we would have to assume that 's-marking would be required phrase finally based on constraints that mitigate against weak forms at the right edge, because a phrase final element must be the head of a phrase.

Also, Selkirk's maintains that the head of a phrase or prosodic word must be a *word*, not a clitic. This is a major distinction she draws between strong and weak forms outlined in (i-iii). In this case, possessive 's cannot be interpreted as a full functional word, which suggests that the requirement for possessive 's in phrase final contexts cannot be attributed to a restriction on appropriate prosodic structure at a phrase boundary.

### 3.7 Conclusions from the DP

In this section I have used previous literature describing DPs as clauses to motivate the structure and ellipsis facts necessary to explain both optional and obligatory possessive marking in AAE. I have demonstrated that the presence of a mid-level functional phrase nP allows a possessive interpretation to be understood when zero-marking occurs prenominally. I have also described the OCE generalization as being due to the need for overt material in D to license ellipsis. Crucially, I have made a case that ellipsis in DPs having the same licensing conditions as those for VPE. This analysis of possessive marking also captures the data related to possessive pronouns. Finally, I have discussed some alternative approaches, which sought to explain the OCE generalization in possessives as a phenomena which could be attributed to the need to recover case-marking given some deletion, to help listeners accurately process certain structures, or to satisfy constraints on prosodic realization of strong forms at phrase boundaries. If anything, these alternate accounts testify to the strength of recognizing that the overtness we see in the elliptical constructions in the DP is, indeed, evidence for overtness as a key ingredient for licensing NPE. In this section we assumed that a silent or zero morpheme could occupy D in non-elliptical possessive constructions in AAE. In the next section, I present claims in the literature about the nature of zero auxiliaries and copula in the TP domain in AAE based on their distribution relative to contracted forms.

### **3.7.1 Zero Morphology and Contraction: Bender, Labov, and Dechaine**

Bender (2001) makes the case that the variation seen in copula optionality in AAE interfaces with syntax, and is not an artifact of phonology, despite the many common analyses in the sociolinguistic literature that assumed the opposite. The earliest proponent of a phonological analysis was Labov (1969, 1995). He was led to assume zero copula and auxiliaries were the product of phonological deletion given that each environment where he observed zero-marking in AAE, contraction could also occur in both AAE and MAE. In essence, Labov assumed that the copula is always underlyingly present (even if it is not overt), but zero-marking resulted from a phonological deletion rule and which contraction feeds deletion.

Making clear the nature of zero copula and auxiliaries will be particularly important for understanding the later data and assumptions that motivate the licensing analysis I propose in Chapter 3. The analysis must hold for zero-copula and zero-auxiliaries and their contracted variants alike. Previously we have accepted Labov's initial characterization that contracted auxiliaries/copula have the same distribution as zero forms in AAE. While neither is allowed preceding an ellipsis site, some linguists point out that there are indeed environments where zero-copula may not appear, while contracted forms are licit. These data will be presented in the next section. Ultimately, we will see that the diverging environments are few, but more importantly, the differences in environments can be derived from movement constraints on zero-forms. Furthermore, no ellipsis is possible in the examples where linguistic environments diverge for zero and

contracted forms, and thus, for the purposes of ellipsis licensing, I conclude that both contracted and zero-forms can be treated as a consistent class.

### 3.7.2 Labovian Parallel Data

Labov outlines seven environments where copula absence (and hence contraction) are disallowed. These are outlined in examples (93)-(100) below.

- (93) NONFINITE CONTEXTS
  - a. \*You got to \_ good, Rednall!
  - b. You got to be good, Rednall! (L95)
- (94) IMPERATIVES
  - a. Be cool, brothers! (L95)
  - b. \*\_ nice to your mother!
- (95) ELLIPSIS
  - a. (You ain't the best sounder, Eddie!) I ain't! He is! (L95)
  - b. \*They said he wild, and he \_. (S&W99)
  - c. They said he('s) wild, and he is.
  - d. \*They said he wild, and he's.
- (96) EMPHASIS
  - a. Allah IS god. (L95)
  - b. He IS a expert. (L95)
  - c. \*He a expert. (emphatic meaning)
- (97) PAST TENSE<sup>32</sup>
  - a. \*He here yesterday. Bender (2001:88)
  - b. \*He here, wasn't he?
- (98) INVERSION
  - a. It ain't a flower show, is it?
  - b. \*It ain't a flower show, \_ it?
- (99) COMPLEMENT EXTRACTION
  - a. I don't care what you are. (L95)
  - b. \*I don't care what you \_.

---

<sup>32</sup> Green (1998) has shown that zero-marking in past tense is attested in a narratives though some have argued that zero is unspecified for tense and other contextual clues are needed. Bender's data suggest an overall preference for present interpretation, confirming initial claims.

In a few cases, however, Bender shows that the data Labov gives as evidence for each environment are not always sufficient. While Labov relied on spontaneous speech data to evaluate his hypotheses, Bender shows that use of grammaticality judgments allowed for a more nuanced understanding of the zero and contraction parallels. Crucially, Bender identified two environments where zero-marking did not seem to pattern like contraction. I will present her arguments, but I will ultimately show that these environments cannot involve ellipsis. Thus, I will not propose that zero-marking is derived from a deletion rule like Labov, but I will make the case that contraction and zero-marking of copula and auxiliaries have the same distribution. This will allow us to treat both zero and contraction in TP as parallel forms in subsequent chapters.

### 3.7.3 Inversion

Labov suggested that neither contracted nor zero copula invert. Bender, however identifies the examples in (100) as evidence that contracted elements do indeed show evidence of inversion, and that in this same environment, zero-marking is prohibited. According to Pullam and Zwicky (1997), *so* is an environment where contraction is permitted. The AAE consultants that provided grammaticality judgments for Bender determined that zero was not appropriate in *so* constructions (100) which would be expected if zero patterned with contraction.

- (100)
- a. I'm tired, and so is my dog.
  - b. I'm tired and so's my dog too.
  - c. \*I'm tired and so my dog.

Bender suggests that it is clear that *so* constructions involve inversion based on the ungrammaticality of (101) with either full or the contracted copula.

- (101)       a. \*I'm tired and so my dog is.  
              b. \*I'm tired and so my dog's too.

Because the copula cannot remain in final position as the example shows, she concludes that the *so* construction in general requires inversion of the copula. If that is the case, we might assume that at d-structure, *so* is an anaphoric representation of the predicate that either originates following the copula, or is inserted in the SpecCP (Hankamer and Sag (1976), Cornish (1992), Houser (2010) “so”—See also LaCara (2016) for an alternative account to inversion). Once there, *so* attracts T to its C head in the same way Wh- elements in SpecCP trigger T to C subject auxiliary inversion. In this case, we see that the auxiliary must invert. It cannot be the case that contraction happens early and the auxiliary moves with *so* because either *so* is not base generated but inserted, OR *so*'s position follows the auxiliary. This suggests that the copula must invert, and contraction must occur at a later stage of the derivation.

In its inverted state, both the full and contracted form are permitted, but according to Bender, the zero form is not as (100) shows. I argue that this difference in distribution between the contracted and zero-element hinges on the fact that two types of contraction processes exist—phonological reduction vs. contraction (Hendrick 1982). I suggest that the *so* data is an example of phonological reduction. Though this reduction yields a surface form that mimics a morphological expression similar to contraction, we can see that it is not entirely the same when we look at reduction of other copular forms. If we take as a subject first, second or the third-person plural pronoun, we can either have a full form comprised of a vowel and –r (*are*), or we can have the contracted form where the vowel is deleted, but the final consonant remains and is produced with its preceding host. The pronouns (you're, [jə]; they're, [ðə]) and the contracted forms together create a monosyllabic element. We also find that the lexical elements produced given contraction



in (102) do not have the same phonological form as those that surface when we consider how these copula are produced in *so* constructions.

(102) My dog is great, and my mom's/you're/they're/I'm great, too.

(103) My dog is great, and

- |                       |                     |
|-----------------------|---------------------|
| a. i. so's my mom.    | [soʊs]              |
| ii. so is my mom.     | [soʊ.wɪs]           |
| b. i. so're you/they. | [so.wə] / *[soə]    |
| ii. so are you/they.  | [soʊ.wə]            |
| c. i. so'm I.         | [soʊ.wəm] / *[soom] |
| ii. so am I           | [soʊ.wæm]           |

In (103) we see that *so* is accompanied by forms of the contracted element that require a separate syllable. In these examples, we would expect the copula *are* to contract and yield a surface representation like [soə] (something homophonous with the word *sore*) if the process of contraction is the same as for the copula *is* in this environment. However, that pronunciation is ungrammatical, and instead, the bisyllabic [so.wə] (homophonous with *sower*) is attested. While vowel reduction occurs between the full and contracted forms in these cases, it seems as though phonological reduction has occurred, and not the use of a contracted allomorph. In this way, we could suggest that the syntax in *so* constructions requires the inversion of a full copula, however, a reduced form may surface due to phonological reduction processes. This would suggest that neither zero nor true copular clitics can occur in this position, which examples (104) and (105) show is indeed the case. This is evidence that zero and contracted clitics maintain the same distribution.

(104) I'm great and so is my dog.

(105) \*I'm great and so's/∅ my dog.

Hendrick (1982) uses question formation processes to make a similar argument distinguishing phonological and syntactic contraction (reduction and contraction respectively). He suggests that MAE also has an option to delete a copula in questions such as the ones listed in (106)-(108). He suggests that only inverted copula are able to be deleted in MAE, while the copula left in T can be

produced as full or contracted. Thus, Hendrick argues that the surface realization seen in (107) is the result of subject auxiliary inversion, then phonological reduction. Like Bender, Hendrick refutes Labov's claim that contraction feeds deletion. If contraction *did* feed deletion one should hear utterances like (108) where a copula has moved and later surface as contracted form. Such examples are unattested.

- (106) You're done?
- (107) ~~Are~~ you done?
- (108) \* 're you done?

In Chapter 4 I will discuss the difference between phonological reduction and contraction as they relate to licensing. But, the important point to grasp so far is that a closer look at the data suggests that zero and contracted copular forms do indeed have the same distribution when we control for inversion. I have put forth evidence in this section to show that only copula that can undergo inversion yield the cases of contraction that do not pattern with zero-copula. To this end, I suggest that only phonological reduction process are available to copula that have undergone inversion, but true contracted forms and zero-forms are specific allomorphic exponents, or clitics, and thus are not merged in such environments. Here, I have shown that constraints on inversion are similar for contracted and zero forms.

### **3.7.4 Extraction**

Bender (2001) also proposes that complement and subject extraction are different for AAE zero forms and MAE contraction. However, I will show that inversion also plays a role in these differences. For example, the data in (109) suggests that zero and contracted elements have a different distribution. Bender uses this data to further suggest that Labov's assumed parallel between zero and contraction is not accurate. If it were the

case, we would not see what appears to be zero copula in (109)b. being grammatical while the contracted element in c. is ungrammatical.

- (109) a. How old you think his baby is?  
b. How old you think his baby?  
c. \*How old you think his baby's?

However, Bender notes that for one of her consultants (110) may have another analysis that the zero copula precedes the DP *his baby* rendering *you think* a parenthetical. For two of her three consultants, contraction was possible as in (111).

- (110) How old you think is his baby?  
(111) How old you think's his baby?

Given this data, we are still able to see the parallels between zero and contracted forms.

Lastly, Bender reports that her AAE consultants also identified differences in contraction and zero with subject extraction as in (112).

- (112) a. Tha's the man they say is in love.  
b. Tha's the man they say  $\emptyset$  in love.  
c. ?Tha's the man they say's in love.

However, according to Green (pc) the data in (112)c is not unequivocally ungrammatical. In fact, when the embedded verb is different, grammaticality of all three is even clearer (e.g. (113)).

- (113) a. Tha's the man they know is in love.  
b. Tha's the man they know  $\emptyset$  in love.  
c. Tha's the man they know's in love.

By this token, we also see that the extraction data do not fully prove that there are differences between zero and contracted copula relevant for ellipsis cases. In fact, the examples given to support Bender's difference hypothesis have analyses that suggest that

zero and contracted copula actually have the *same* distribution. For this reason, I will treat zero and contracted forms as having the same structural position, with different morphological reflexes. In essence, I follow Dechaine (1993) who proposed that the only difference between MAE and AAE contracted and zero copula and auxiliaries is with respect to the specific morphological realization. In other words, contracted forms are clitic morphemes and zero forms are silent morphemes. Thus, in whatever syntactic environments contracted forms surface, we will assume zero-forms do as well, but that unlike contracted forms, they are silent.

### **3.7.5 Concluding Constraints on Zero**

As we've just seen, there is experimental data from AAE as well as independent evidence from MAE that suggest that not all semantically identical variants of grammatical entities behave the same in the environment of ellipsis. Specifically, zero possessives as well as zero or contracted copula are inappropriate licensors for ellipsis, yet their morphologically full forms are required. While the data suggest that overtness is necessary for licensing, it is not entirely clear why the fate of appropriate licensing would hinge on this condition. In the next chapter, I propose an analysis of licensing based on agree that motivates the need for overt phonological realization. Beyond capturing overtness data, I will argue that this analysis is predictive of crosslinguistic data for both VPE and NPE constructions.

## CHAPTER 4

### LICENSING PREDICATE ELLIPSIS: IMPLEMENTING THE OCE GENERALIZATION

#### 4.1 Introduction

As we've just seen in Chapter 3, data from AAE as well as independent evidence from MAE confirms that in the environment of ellipsis, not all semantically identical allomorphs suffice as ellipsis licensors. Specifically, null possessives as well as null or contracted copula are inappropriate licensors for ellipsis, and instead, full morphological forms are required. While the data suggest that overtness (phonological realization) is necessary for licensing, it is not entirely clear why the fate of appropriate licensing would hinge on this condition.

In this chapter, I propose that ellipsis is licensed by an Agree relation that is established between a licensing head and target phrase. We will see that only overt functional morphemes can license ellipsis because they are the only elements that satisfy the requirements to enter into this agree relation with phrases that can be elided at PF. The analysis I will propose assumes that functional morphemes *carry* [E], the feature necessary to establish the Agree relation that marks predicates for deletion at PF. This analysis formalizes the descriptive generalization we have previously referred to as the Overtness Criterion for Ellipsis (OCE).

**Overtness Criterion for Ellipsis (OCE):** A phonologically realized (overt) functional head is required to license complement deletion in Predicate Ellipsis at PF.

We have seen this overt/underlining distinction play out in AAE, however, in this chapter I show that the requirement is quite robust, and is consistent for VPE and NPE across English dialects, as well as languages that allow verb stranding verb phrase ellipsis. The data to be addressed is summarized in Figure 10 on page 75. This data will allow us to further specify the scope of the OCE generalization as we see that licensors of Predicate ellipsis all meet certain criteria for ellipsis licensing described below as OCE generalization Specifications:

**OCE Specifications:**

- I. A functional head is present in the structure
- II. A morphological element expressing functional features is produced
- III. The morphological exponent must structurally fill or occupy the functional head

The OCE Specifications are merely a description of the necessary criteria displayed by the range of elements that can license ellipsis (outlined in Figure 10, page 75). These licensors form a general class with similar syntactic distributions and morphological behaviors.<sup>33</sup> Namely, phonologically realized functional morphemes that occupy functional heads license PF deletion. Morphemes that occupy lexical phrases and lexical heads, along with contracted functional forms, do not license ellipsis.

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<sup>33</sup> Of particular interest is the difference between contracted auxiliaries and possessives, which will be the focus of Chapter 5. For instance, while contracted auxiliaries cannot license ellipsis, overt possessives of similar phonological content (-s) do license ellipsis.

<b>Figure 10: Predicate Ellipsis Licensing Typology</b>			
	Syntax	License	Don't License
<b>NP Ellipsis</b>			
<b>DP</b>	D	Possessives –s, -n <sup>34</sup>	Ø Pos; supplet forms ( <i>her, your</i> )
	Num	Numbers, quantifiers ( <i>three, most</i> )	
AdjP			<i>adjectives</i>
<b>“VP” Ellipsis</b>			
VP AuxP			main verbs <sub>English</sub> ; <i>have<sub>v</sub></i> ; <i>be<sub>non-finite</sub></i>
vP; vP <sub>asp</sub>	Asp?		<i>be, BIN, d<sub>n</sub><sub>AAE</sub></i>
DegP			<i>very, really</i>
NegP	Neg	<i>not</i>	n't, NPIs?
<b>TP</b>	T	main verbs <sub>Verb-Stranding VPE Languages</sub>  (Portuguese, Hebrew, Swahili, Irish?)	
	T	Auxiliaries (full forms: <i>is, am, was, were etc</i> )	Ø Aux; Contracted Allomorphs (-s, -m)
	T	Copula (full forms: <i>is, am, was, were</i> )	Ø Cop; Contracted Allomorphs (-s, -m)
	T	Modals ( <i>will, should, can, might, must, could, would</i> )	Contracted ( <i>'ll, 'd</i> )
	T	Do-support	Subjunctive <sub>ENG</sub>
	T	Infinitives ( <i>to</i> )	
	T	<i>have<sub>asp</sub></i>	<i>'ve</i>
CP		* <sup>35</sup>	<i>that, if</i>

## 4.2 The Analysis: Agree<sub>OCE</sub>

Based on the ellipsis data we have seen in this dissertation thus far and the OCE specifications, the right licensing analysis must combine a requirement for both overtiness and nonlocal deletion. Although Aelbrecht (2009) assumes that only T can be the

<sup>34</sup> Historical analyses of *mine* along with observations with Abney (1987) suggest that –n may be an allomorph of –s possessive marker which also heads D.

<sup>35</sup> Only elements assumed to have originated in T are found to be licensors. Questions in English are a main example (He's running, is she?). I assume that licensing happens in T before the licensor moves.

licensor, there is evidence that other heads can license such as Neg. Furthermore, I contend that the right analysis will also capture licensing of NPE. I propose that ellipsis is licensed by an Agree relation established between a phonologically realized (overt) functional morpheme that c-commands a lexical phrase. Overt functional morphemes carry the [E] feature, and lexical phrases carry an unvalued E feature. The analysis is formalized below:

### **Agree<sub>OCE</sub>**

Ellipsis is licensed by an Agree relation between functional head morphemes ( $M_F^0$ ) and lexical phrases (LexP).

$M_F^0$  agrees with LexP iff:  $M_F^0$  c-commands LexP<sup>36</sup>

Where:  $M_F^0$  [fnc<sup>0</sup>, PHI, E]  
LexP [uE]

Agree<sub>OCE</sub> predicts that functional morphemes will be licensors of ellipsis, and thus, they should never delete in elliptical utterances. It also predicts that lexical phrases are the targets of deletion, and thus in the event of ellipsis, lexical phrases should delete in their entirety. In the analysis, ellipsis is licensed when an Agree relation is established between the licensor, a functional morpheme, and the target of ellipsis, a lexical phrase through valuation of [uE]. Thus, under Agree<sub>OCE</sub>, the reason a functional morpheme is required is because morphological exponents carry the E feature (reminiscent of Merchant 2001) as a part of their feature constellation or lexical entry.

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<sup>36</sup> I have suggested that all lexical phrases are targets for deletion. PP's are controversial. I assume they are lexical phrases, but take the view that PP's undergo rightward movement out of the c-commanding domain, which allows these phrases to be optionally stranded in some elliptical constructions. Beyond PPs, we will see all lexical phrases delete, and I will argue that the optional stranding of a certain elements (*be have*) relate to their structural position, either in a lexical head, or higher, occupying a functional head as a result of raising.



The E feature, akin to that of Merchant 2001, is composed of both semantic and syntactic information. The semantic information relates to achieving the right antecedent conditions and interfaces chiefly with LF. Syntactic information, at issue here, specifies that an unvalued E feature must establish an Agree relation with an item bearing E in its domain to be valued. It may be the case that each lexical category has slightly different [E] features, i.e. each  $uE$  is specific to the specific functional features within the particular category that draws their licenser as outlined below.

VPE	$E_{VP}$ [ $uT$ , $uNeg$ , $uAux$ ]
NPE	$E_{NP}$ [ $ugen$ , $uPlural$ ]

Yet, the requirement can be even simpler. Assuming like Aelbrecht, that ellipsis licensing happens within phases or functional phrase domains, it is enough to specify that a generic  $uE$  feature probes for c-commanding E feature in head position.

VPE	$E_{TP}$ : T, Neg, Aux	$[uE_{VP}]$ : vP, VP, AdjP, PP
NPE	$E_{DP}$ : D, Num	$[uE_{nP}]$ : nP, NP, AdjP, PP

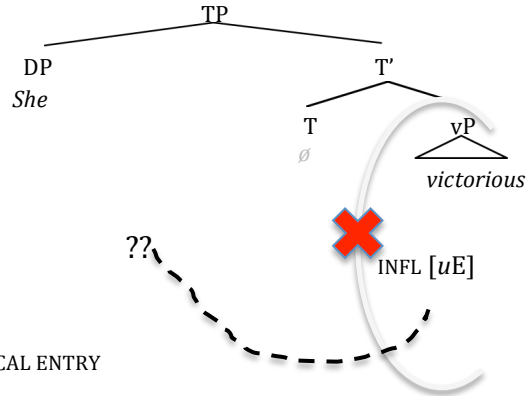
Consider the following example “She is victorious” as a means of seeing the analysis in action. In this phrase, *is* has associated PHI and tense features along with an interpretable E feature within its feature bundle ( $M_F[\Phi, \text{tense}, E]$ ). The [E] feature is a part of its lexical entry as a functional element. The lexical phrase “victorious” contains an unvalued E feature that must enter into an Agree relation by feature checking if it is to be available for deletion at PF ( $\text{LexP}[uE_{VP}]$ ). Here the  $uE$  on the AdjP *victorious* probes c-commanding functional morphemes and finds an interpretable E feature in functional



(115)

a. She victorious.

b.



c. LEXICAL ENTRY

$\emptyset$	$\left[ \begin{array}{l} [3^{\text{rd}}, \text{pres}] \\ [uE_{vP}] \end{array} \right]$
victorious	

Thus, we see in the examples above, that when a functional morpheme is realized, ellipsis is licensed resulting in the possibility of deletion of a LexP. Agree<sub>OCE</sub> accounts for this alternation.

The Agree<sub>OCE</sub> analysis makes these predictions when ellipsis occurs:

- 1) A phonologically realized functional morpheme must C-command a LexP
- 2) The functional morpheme will never delete; it must be stranded
- 3) Lexical phrases will delete in their entirety; they cannot be stranded

The Agree<sub>OCE</sub> analysis draws on the basic premise that licensors will be phonologically realized functional morphemes, and that targets of ellipsis will be Lexical Phrases in its c-command domain. In this chapter, I will first provide data that demonstrates clearly the reason a function/lexical distinction must be assumed for ellipsis licensing. After this is established, the remainder of the chapter will show that Agree<sub>OCE</sub> predicts the range of ellipsis facts for both NPE and VPE for both mainstream and African American English. Namely, when ellipsis occurs, a phonologically realized functional morpheme is present, and the c-commanded lexical phrase will delete.

### 4.2.1 Motivating Functional Licensors and Lexical Targets

Agree<sub>OCE</sub> predicts that c-commanding functional morphemes are licensors of ellipsis and lexical phrases are targets. But why would it be necessary to make this distinction? We will see that this distinction is crucial for predicting ellipsis licensing for certain morphemes that can surface in both lexical and functional environments. *Have* is a prime example. In mainstream English (MAE), *have* is assumed to have multiple structural positions; it can surface as a lexical main verb and can also have the structural location and function of an auxiliary (Ritter 1997, Aelbrecht and Harwood 2015). Both variants of *have* can be seen in a sentence like ‘I have had a headache all morning.’ We will see that when *have* behaves as a main verb, it is the target of deletion and cannot be stranded. When *have* operates as an auxiliary, a functional element, *have* can function as a licensor and cannot be deleted; it must be stranded. Because these *have* variants may have similar features in general, a feature-based account of licensing simply cannot predict the alternation we will see in licensing. Agree<sub>OCE</sub> can.

### 4.2.2 Have and be

Ritter et al (1997) list the main distinctions of the main verb and auxiliary forms of *have* as the following:<sup>38</sup>

#### ***Auxiliary Verb***

- adds no extra argument
- fails to assign case
- raises to I
- contracts with subject
- takes negation

#### ***Main Verb***

- adds an extra argument
- assigns accusative case
- fails to raise
- fails to contract
- fails to take negation

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<sup>38</sup> Aelbrecht and Harwood (2015) provide further evidence of these two structural positions for verbs like *have* and *be* within the minimalist program.

We will use contraction and negation as diagnostics to identify main verb vs. auxiliary *have*. Because neither contraction nor negation can occur in (116) in MAE below suggests that *have* here is a main verb.

- (116) I have<sub>lex</sub> a dog.
- (117) \*I've a dog.
- (118) \*I haven't a dog.

We have diagnosed (116) as a main verb suggesting that *have* here heads a LexP. Based on Agree<sub>OCE</sub> we predict that in the case of ellipsis, the phrase headed by *have* should delete and *have* will not be stranded. This is exactly what we see.

- (119) \*I have a membership, and you also have ~~a membership~~.
- (120) I have a membership and you also do ~~have a membership~~.
- (121) \*I have a membership and you also do have ~~a membership~~.

In (119), ellipsis is not licit; *have<sub>lex</sub>* cannot be stranded, thus it cannot license. In (120), however, when a functional morpheme *do* is inserted, ellipsis becomes licit. This suggests that *do* here is the licenser. Furthermore, in (121) we see that even if *do* is present, the phrase is still ungrammatical if main verb *have* is stranded. For ellipsis to occur, main verb *have* must delete. This is important evidence that lexical phrases are indeed the target of ellipsis as is predicted by Agree<sub>OCE</sub>.

We have seen one part of the prediction of Agree<sub>OCE</sub> bear out. When *have* heads a lexical phrase it cannot license ellipsis. It cannot be stranded, but must be deleted. Ellipsis is only licit here with *do*, a c-commanding functional morpheme. For Agree<sub>OCE</sub> to be maximally explanatory, it would also need to predict that when *have* occupies a functional node it can serve to license ellipsis and must be stranded. This is exactly what we see.

Because contraction and negation can occur in the following example, we can diagnose this variant of *have* as an auxiliary.

- (122) They have tried the Insanity workout.
- (123) They've tried the Insanity workout.
- (124) They have not tried the Insanity workout.

Due to its ability to be contracted, and its position preceding negation, *have* in this environment must be an auxiliary, a functional morpheme. Just as predicted by Agree<sub>OCE</sub>, when ellipsis occurs *have<sub>func</sub>* cannot be the target of ellipsis.

- (125) They have tried the Insanity workout, and you have ~~tried Insanity~~ too.
- (126) \*They have tried the Insanity workout, and you ~~have tried Insanity~~ too.

In (125) ellipsis is available, yet (126) shows us that auxiliary *have* must be the licensor given that its deletion renders the utterance ungrammatical. Just as predicted, the functional element *have* cannot be the target of ellipsis. It cannot be deleted. Furthermore, in the presence of other potential licensors, *have<sub>func</sub>* must still be stranded. For instance, below we see that the modal *should* can license ellipsis.

- (127) They should try Insanity, and you should ~~try Insanity~~ too.

Thus given modal stacking with *should* and auxiliary *have*, the agree relation for ellipsis licensing can be established with either *should* or *have*. Agree<sub>OCE</sub> is agnostic about which is the licensor when multiple phonologically realized functional morphemes surface.

However, if for this example we assume that *should* licenses, *have* must be stranded for Agree<sub>OCE</sub> to hold even if it is not required for licensing per se. This is precisely what we see.

- (128) They should have tried Insanity, and you should have ~~tried Insanity~~ too.  
 (129) \*They should have tried Insanity, and you should ~~have tried Insanity~~ too.  
 (130) They should have tried Insanity, and you should've ~~tried Insanity~~ too.

Even if *should* is the licenser of ellipsis in (128), we see that *have* must be retained. The functional morpheme cannot be the target of ellipsis according to Agree<sub>OCE</sub>, and this is corroborated by the data. Example (129) is ungrammatical when *have* is not stranded—it does not have a meaning synonymous with the elliptical utterance in (128). Finally, example (130) again shows that even the contracted form of *have* must be stranded. Its contracted form cannot be the target of deletion.<sup>39</sup>

We have now seen that the ellipsis facts with both lexical and functional forms of *have* testify to the strength of the Agree<sub>OCE</sub> theory. The analysis predicted that auxiliary *have* will be an ellipsis licenser and will thus never be the target of ellipsis and it must be stranded. On the flip side, main verb *have* must always delete in elliptical utterances; it can never be stranded.<sup>40</sup> The data are important for solidifying the functional vs. lexical distinction inherent in the analysis. Because the same word, in this case, *have*, can be the licenser of ellipsis when it is an exponent of a functional head, and the target of ellipsis when in a lexical head, we see the importance of structural location and c-command for licensing.

Agree<sub>OCE</sub> is maximally explanatory of the data. When *have* occupies a functional head, it is a licenser of ellipsis because it carries [E], and is in a position c-commanding a LexP.

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<sup>39</sup> Chapter 5 will discuss the role of contracted elements in licensing. Namely, contracted elements cannot be licensors.

<sup>40</sup> Agree<sub>OCE</sub> assumes that [E] is a part of the lexical entry for functional elements. We might hypothesize that *have* carries the [E] feature even when in a lexical position based on Ritter et al.'s assumption that there is but one single form. Even if the lexical form carries [E], the licensing facts are still predicted by Agree<sub>OCE</sub>. Lexical phrases are looking to c-commanding functional phrases for valuation of *uE* when probing to agree for ellipsis. The [E] on *have* in its main verb position would simply not be visible because it doesn't occupy a functional node.

Agreement occurs through valuation of [ $uE$ ] on LexP. When it heads a lexical phrase it is the target of ellipsis, as it requires agreement with a c-commanding functional element for licensing. These facts look surprisingly similar to Verb Stranding Verb Phrase Ellipsis (VSVPE). In the next section I show that VSVPE data also can be accounted for by Agree<sub>OCE</sub>. Furthermore, I make the case that there is actually no need for a separate analysis of Verb Stranding Verb Phrase Ellipsis as the crosslinguistic facts are also predicted by the Agree<sub>OCE</sub> analysis.

#### 4.2.3 Verb Stranding Verb Phrase Ellipsis

Languages like Hebrew, Swahili, Irish and others like Portuguese are languages requiring V to T movement. They also display ellipsis like deletion. Deletion in these varieties has been described as verb stranding verb phrase ellipsis (VSVPE) because unlike in English varieties, the main verb is stranded while the rest of the clause is deleted (Goldberg 2005, Doron 1999). Interestingly, VSVPE is fully accounted for by Agree<sub>OCE</sub>. I argue that while verb stranding ellipsis may operate differently than ellipsis with most main verbs in English, these phenomena are quite similar to ellipsis with English *have* constructions. Ultimately, we will see that because main verbs must raise in these languages to a functional node, they can license ellipsis under Agree<sub>OCE</sub>.

Let's take the example from Hebrew below. While Hebrew has null objects (see example (47) below), Goldberg shows that verb stranding verb phrase ellipsis is indeed responsible for the surface string in (48).



**Hebrew: Null Animate DO (\*Null Object) and Overt Indirect Object (\*VPE)**

*Context: Dvora is pregnant and has many errands to do; Miryam, who has a car but is sometimes inconsiderate, is supposed to be helping her.*

(47) Q: (Ha-'im) Miryam hisi'a et Dvora la-makolet?  
Q Miryam drive[Past3Fsg] ACC Dvora to.the-grocery.store  
'(Did) Miryam drive Dvora to the grocery store?'

A: \*Lo, 'aval hi hisi'a la-DO'AR.  
no but she drive[Past3Fsg] to.the-post.office  
'No, but she drove (her) to the POST OFFICE.'

**Hebrew: Null Animate DO (\*as Null Object) and Null Indirect Object, ✓ as VPE**

*Context: Same.*

(48) Q: (Ha-'im) Miryam hisi'a et Dvora la-makolet?  
Q Miryam drive[Past3Fsg] ACC Dvora to.the-grocery.store  
'(Did) Miryam [drive Dvora to the grocery store]?'

A: Ken, hi hisi'a.  
yes she drive[Past3Fsg]  
'Yes, she drove [Dvora to the grocery store].'

In (48) above we see the verb *drive* is preserved in the string, while the rest of the clause [Dvora *t* to the grocery store] is deleted. Here, only the verb escapes the lexical phrase and moves leftward to occupy a c-commanding functional position. Deletion is then possible. This should sound familiar as the mandatory stranding of a c-commanding functional element and full deletion of a lexical phrase is exactly what is predicted by Agree<sub>OCE</sub>. We don't see deletion of the phrase [*to the grocery store*] that *drive* c-commands while in situ. This shows us that licensing cannot happen from its base position in a lexical phrase. Instead, when it occupies the functional head, T, only then is the [E] feature it carries visible to the LexP. Valuation occurs, and because the agree relation has been established, ellipsis is licensed. It does not matter that *drive* was base generated in vP, its location after movement sets the Agree<sub>OCE</sub> machinery into action.

Verb Stranding Verb Phrase Ellipsis occurs also in Irish, Swahili and a few other languages like Portuguese that are said to have V to T movement. Below we have another example from Hebrew, and also ones from Irish and Swahili. The ingredients of the utterances are the same. In (2), (3) and (4) reprinted from Goldberg, we see that the verb (which must move from V to T in these languages) is stranded (*send*, *bought*, and *wanted*

respectively), while the entirety of the lexical phrases from whence they came must delete.

**Hebrew VPE with Main V Obligatory Overt** (Doron 1999:ex.13)

(2) Q: Šalaxt etmol et ha-yeladim le-beit-ha-sefer?  
*send[Past2Fsg] yesterday ACC the-children to-house-the-book*  
 '(Did you) send [yesterday the children to school] ?'

A: Šalaxti.  
*send[Past1sg]*  
 '(I) sent [yesterday the children to school] .'  
 (cf. English '...I *did* [send the children to school yesterday].')

**Irish VPE with Main V Obligatory Overt** (McCloskey 1991:ex.27a)

(3) Dúirt mé go gceannóinn é agus cheannaigh.  
*said I COMP buy[Condit1sg] it and buy[PastAnl]*  
 lit. 'Said I that would buy [(I) it] and bought [it].'  
 (cf. English '...and I *did* [buy it].')

**Swahili VPE with Main V Obligatory Overt** (Ngonyani 1996a:ex.20a)

(4) Mama a-li-tak-a ku-m-nunul-i-a m-toto vi-atu  
*mother 1Su-Past-WANT-FV Infin-1Obj-BUY-Applic-FV 1-child 8-shoe*  
 na baba a-li-tak-a pia.  
*and father 1Su-Past-WANT-FV also*  
 'Mother wanted [to buy the child shoes] and father wanted [to buy the child shoes] too.'  
 (cf. English '...and father *did* [want to buy the child shoes] too.')

Previous work has assumed differing licensing requirements were necessary to describe VPE from Verb Stranding Verb Phrase Ellipsis (VSVPE). However, the VSVPE data show that Agree<sub>OCE</sub> is indeed explanatory of these phenomena as well. The Agree<sub>OCE</sub> analysis does not block the possibility of licensing by a main verb, but accounts for the fact that licensing by a main verb only occurs when the morpheme is merged in a c-commanding functional head. Therefore, licensing of ellipsis for these languages has the same criteria as English in that both require a morphological element to occupy a c-commanding functional head to license deletion of a lexical phrase. It seems Hebrew-like languages differ from English-like ones in ellipsis only by the fact that more main verbs are allowed to occupy T.

In this section we have used *have* and verb stranding verb phrase ellipsis to validate the functional/lexical distinction inherent in the Agree<sub>OCE</sub> analysis. These examples have shown clearly that phonologically realized functional morphemes are licensors of ellipsis. These functional elements can be inserted as in *do* support, base generated, or merged as a result of movement. We recognize them as licensors because they do not delete in elliptical contexts. We saw that lexical phrases were the targets of ellipsis. They were never stranded in elliptical environments; they always deleted. In the remainder of the chapter I will present more crosslinguistic ellipsis facts for both NPE and VPE, and show that the predictions of Agree<sub>OCE</sub> continue to hold true.

When ellipsis occurs:

- 1) A phonologically realized functional morpheme c-commands a LexP
- 2) The functional morpheme will never delete; they must be stranded
- 3) Lexical phrases will delete in their entirety; they cannot be stranded

### **4.3 Noun Phrase Ellipsis**

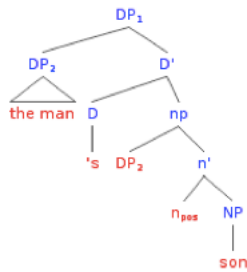
#### **4.3.1 Possessives**

Ellipsis in the DP domain occurs in possessive phrases and phrases involving NumP. We will see that NPE data are accounted for by Agree<sub>OCE</sub>. Namely, functional morphemes must be present for ellipsis to occur, and these elements will not be deleted. The C-commanded lexical phrases within the DP will delete in their entirety in the event of ellipsis.

Abney (1987) provided evidence for DP as a functional phrase akin to TP, and showed

that possessive morphology in English is associated with the functional head D. I assume the DP structure proposed by Abney, with the inclusion of nP layer (Toosarvandani 2011 ao). I have claimed in Chapter 3 that the possessive interpretation in AAE may be arbitrated by a little n head in absence of overt morphology. The DP structure I will assume is in (131).

(131) The man's son.



For possessives in both MAE and AAE, we see that ellipsis is licensed by a possessive morpheme in D. This is even the case for phrasal possessives (132). The experiment in Chapter 2 further showed specifically that the possessive morpheme is quite clearly the licenser of ellipsis. While zero-marking of possessive is attested in AAE, an overt possessive morpheme is required preceding an ellipsis site (133).

(132) John's date to prom, is as strong as the guy in the corner's ~~date~~.

(133) I see Mike('s) date, and you see Mathew's/\* $\emptyset$  ~~date~~.

This alternation in (132) and (133) is predicted by  $Agree_{OCE}$ . The analysis assumes that the functional morpheme, here possessive –s, carries the [E] feature. The lexical phrase, *date*, requires agreement with [E] on the functional exponent –s for valuation of [ $uE$ ] to occur.  $Agree_{OCE}$  further predicts that in (133) when no phonologically realized functional

morpheme c-commands the LexP, *date*, ellipsis is not licensed as the LexP could not enter into an agree relation for licensing.

Similarly, possessive pronouns also provide clear evidence for Agree<sub>OCE</sub>. In these constructions filling of the functional head is quintessential for ellipsis to be licensed in both MAE and AAE. Even when +gen would be satisfied by the DP specifier through a suppletive form like *her*, and D remains null, no licensing of ellipsis occurs unless a functional morpheme is merged in D as shown in (134). Again, Agree<sub>OCE</sub> accurately predicts that when no c-commanding functional morpheme is merged, ellipsis will not take place.

(134)

- a. That is her hat.
- b. That hat is hers ~~hat~~
- c. \*That hat is her ~~hat~~.
- d. \*That hat is hers hat.

By this, it is clear that licensing of ellipsis does not require the simple presence of some element marked for +gen, or otherwise we would find (134)c grammatical because the pronominal form is itself marked for +gen. Thus we see it cannot be the work of a feature alone that allows for licensing of ellipsis. The possessive pronoun in spec DP fails to license ellipsis here. Instead, to have a licit elliptical phrase with this pronoun, a functional morpheme must be merged in D providing a c-commanding element for agreement with the LexP *hat*. As predicted by Agree<sub>OCE</sub>, the functional morpheme cannot be deleted, nor could any of the LexP be stranded.

(135) That's Donovan's cup of coffee, and that's Aubrey's cup ~~of coffee~~.

(136) \*That's Donovan's cup of coffee, and that's Aubrey's cup ~~of coffee~~.

Following Berg (2011) I assume that both –s and –n are functional morphemes that can occupy D in possessive phrases. In this way, *mine* can be analyzed as the possessive pronoun *my* in Spec DP, and the possessive morpheme –n in D.<sup>41</sup>

<b>Figure 11: Possessive Morphology</b>		
Person/Number	Possessive Pronoun	Elliptical Morpheme
1 <sup>st</sup>	my	-n
2nd	your	-s
3rd	his; her	-s
Plural	their; our	-s

Therefore, in the same way that a distinct morpheme occurs in the first person for auxiliaries (*am/'m* vs. *is/'s*), the same occurs in the DP domain (-n vs. -s). Thus, the first person has distinct morphology in both varieties, in both the DP and TP domains, allowing the generalization to remain: the morpheme associated with D is merged in the case of ellipsis despite the fact that suppletive forms bearing +gen also occur. What's even more compelling is that the merging of possessive morphology in D *only* occurs with ellipsis. Consequently, we might recognize the morphological requirement for the filling of D in the specific case of possessive pronouns to be *unique* to elliptical utterances. This further supports the claim that functional morphemes actually *carry* the [E] feature necessary for establishing the agree relation that licenses ellipsis. Especially in AAE, no morphology is required for possessives in general when the complement remains, but for any possessive DP in elliptical contexts, an independent morpheme must be merged in a functional head that c-commands the LexP target. Here I have shown that Agree<sub>OCE</sub> predicts the ellipsis facts for NPE with possessives. Functional morphemes in D

<sup>41</sup> In some varieties of AAE *mines* is the possessive pronoun that precedes elided NPs. Here I will assume –s occupies D as a regularization. There are various discussions of this form (Mufwene 1998c) but given it is not used by all AAE speakers, further discussion is beyond the scope of this dissertation.

must be phonologically realized. They never delete in the event of ellipsis. Lexical phrases delete and in their entirety in the environment of ellipsis.

#### 4.3.2 Number Phrase

Also in the DP layer are phrases that contain NumP which also have been said to play a role in ellipsis licensing. While some analyses suggest that NumP is only in DPs with certain lexical items that instantiate number marking, others suggest that NumP is a part of every DP associated with any plural features regardless of whether the NumP head is filled. What is important for the purpose of this discussion, however, is when elements associated with Num surface in the derivation, do they function in the licensing of NPE as predicted by the current analysis. We will again see that when a morpheme surfaces in Num, ellipsis is licensed and the lexical phrase it c-commands must elide in its entirety as predicted by Agree<sub>OCE</sub>.

Take the example in (137).<sup>42</sup> We see that ellipsis is licensed when a morphological element is merged in the functional head. This morpheme cannot be deleted.

Furthermore, example (139) shows us that the lexical phrase it c-commands must be deleted, and in its entirety.

- (137) You like three ugly cats, and I like none/two/most ugly cats.<sup>43</sup>  
(138) \*You like three ugly cats and I like ~~two ugly cats~~.  
(139) \*You like three ugly cats, and I like two ~~ugly cats~~.

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<sup>42</sup> However there are certain quantifiers that do not work quite as well. However, there is some debate about whether words like *many* and ?? head Num or if they are associated with AdjP as in (4).

(1) \*I like three cats, and you like many ~~cats~~.

<sup>43</sup> I personally abhor cats.

The licensing in (137), and failure to license in (138)-(139) is predicted by Agree<sub>OCE</sub>, for ellipsis only occurs with the stranding of Num<sup>0</sup> morphology, and the complete deletion of the lexical phrase occurs only when that c-commanding functional morpheme is present in the head of Num.

### 4.3.3 Adjective Phrase and Degree Phrase

Lexical phrases AdjP and DegP can also be a part of a DP. Agree<sub>OCE</sub> predicts that because of their lexical phrase status, these phrase types should be targets of ellipsis and we should not see elements from either phrases type be stranded. This is exactly what we see. Neither AdjP or DegP (*very/really*) morphemes precede an ellipsis site. Take (140) for example. While the initial clause provides a salient linguistic antecedent (*car*), ellipsis fails to occur after the adjectival elements. Similarly, degree elements do not precede elliptical environments either as (141) shows.

- (140) \*I like a big car and you like a little/ugly/fast ~~car~~.  
 (141) \*I like a little car, and you like a very/totally/rather ~~little/ugly/fast car~~.

Ellipsis is licensed here, however, by a c-commanding morpheme heading NumP (142)-(144) or in D of a possessive DP (145)-(147). It is also clear that neither elements in the degree phrase or adjective can be stranded.

- (142) I like three very big cars and you like two ~~very big cars~~.  
 (143) \*I like three very big cars and you like two ~~very big cars~~.  
 (144) \*I like three very big cars and you like two very big ~~cars~~.  
 (145) I like Joe's very big cars and you like Sally's ~~very big cars~~.  
 (146) \*I like Joe's very big cars and you like Sally's ~~very big cars~~.  
 (147) \*I like Joe's very big cars and you like Sally's very big ~~cars~~.



In this section we have seen that in the DP domain, Agree<sub>OCE</sub> predicts the ellipsis data. When a phonologically realized possessive morpheme in D, and morphological forms associated with Num are present, ellipsis is possible. Zero morphemes or +gen expressed outside of D cannot be the target of ellipsis because the element would not be in c-command position which would render it illicit for agreement with a lexical phrase. Similarly, items that head AdjP and DegP neither license nor can be stranded. These lexical phrases were shown to be the targets of ellipsis in accordance with Agree<sub>OCE</sub>.<sup>44</sup>

#### 4.4 “Verb” Phrase Ellipsis

In the previous section we saw that Agree<sub>OCE</sub> predicted the licensing of noun phrase ellipsis. Noun phrase ellipsis was licensed by morphological elements in functional heads D and in Num. Lexical phrases in that domain were the targets for deletion. In this section we will discuss the licensing of “verb” phrase ellipsis. I placed verb in quotations because I will address the deletion of both verbal and adjectival predicates (or any LexP for that matter). Henceforth, assume that my discussion of VPE includes copular constructions as well. Ultimately, we will see that ellipsis in the TP domain has the same licensing criteria as in the DP domain. Namely, that c-commanding morphological elements in functional heads license ellipsis, and that lexical phrases in this domain prove to be the targets of ellipsis. In this way, TP and NegP display the same licensing behaviors as DP and NumP. Morphological elements in each of these heads license ellipsis as predicted by Agree<sub>OCE</sub>.

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<sup>44</sup> The structure of non-Saxon genitives like “a picture of John’s” continues to be a challenge for those describing the nature of possessives. There is debate regarding whether these constructions involve ellipsis or movement alone. A thorough discussion of these constructions is beyond the scope of this project.

#### 4.4.1 Main Verbs and licensing

By definition, verb phrases are targets in VPE. Many suggest that vP is the target of ellipsis (Aelbrecht and Harwood 2015, Akmajian et al. 1979, Sag 1976, Bošković 2014, Sailor 2012 and Thoms 2012). This section will show that the deletion of verb phrases is a natural consequence of Agree<sub>OCE</sub>. Consider the example in (148) where no ellipsis can be interpreted. The sentence is grammatical only under the reading that Joy runs marathons, and Sally runs generally. The elliptical reading where Sally also runs marathons is not available. Agree<sub>OCE</sub> predicts the ungrammaticality of (148) because *run* does not head a functional phrase. There is no c-commanding functional morpheme available to agree with *run* here, and thus the requirements for licensing are not met.

- (148) Joy runs marathons, and  
a. Sally runs marathons, also.  
b. \*Sally runs ~~marathons~~, also.

Agree<sub>OCE</sub> predicts that ellipsis would be licensed if a functional morpheme were merged or moved to T here. This is exactly what we see as the elliptical reading becomes available with the insertion of *do* as (149) shows.

- (149) Joy runs marathons, and Sally *does* ~~run-marathons~~, also.

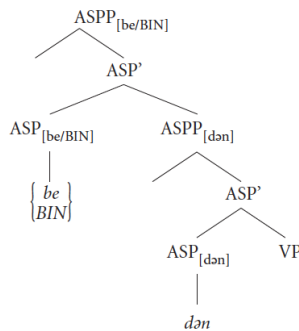
Because unlike Hebrew-like languages, main verbs do not undergo V to T movement in English, under Agree<sub>OCE</sub>, American English main verbs are not appropriate licensors of ellipsis. These examples show that to achieve ellipsis when the antecedent is a main verb, do-support is needed.

#### 4.4.2 Habitual *be* in AAE

For Agree<sub>OCE</sub> to hold, we would expect that any LexP, not just vPs, could be the target of ellipsis when a functional morpheme c-commands. Habitual *be* in AAE is an example that shows that any LexP, not just VP is the target of ellipsis as the ellipsis facts are similar for AAE habitual *be* which heads a phrase preceding vP.

Habitual *be* is said to head AspP (Green and Roeper 2007). This *be* is always uninflected, can never be zero-marked, and can precede the following phrase types: verb+ing, adjectives, prepositions, adverbs, aspectual elements (BIN, *dən*), and passive verb sentences. *Be*<sub>asp</sub> heads the phrase that follows TP, but precedes VP.<sup>45</sup>

(150)



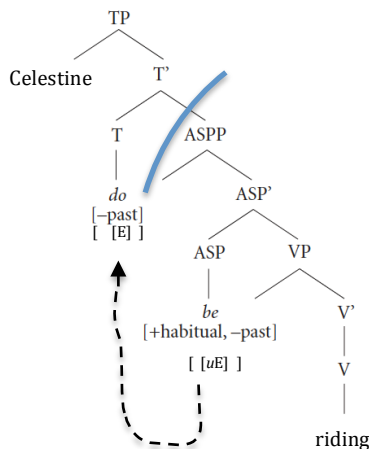
Habitual has an iterative meaning, suggesting that a situation ‘happens on a general basis’ or is in a certain state or place on such occasions (Green 2002). Thus the sentence in (151) is felicitous, meaning that Joe is in the habit of riding his bike to school.

(151) Aubrey *be* riding the train to work, but not today.

<sup>45</sup> Structure in (150) reproduced from Green and Roeper (2007:8).

Again, Agree<sub>OCE</sub> predicts that phrases headed by *be* would be targets of ellipsis, which means we should not find this aspectual marker preceding an ellipsis site. This is what we find in example (152)(1)a. Here, *be* cannot precede an ellipsis site. Because it is a part of a lexical phrase, it must be deleted. Agree<sub>OCE</sub> also predicts that in order for ellipsis to be licensed here, a functional morpheme must c-command AspP, for that morpheme carries the [E] feature necessary for the agree relation that makes licensing possible. In accordance with the predictions, in (152)(1)b we see that *do*-support is needed for ellipsis to occur. The merging of this functional element brings [E] to the derivation in a c-commanding location. When AspP probes c-commanding functional phrases, [E] is available to value [*u*E] on AspP, and licensing is available. Lastly, habitual *be* cannot be stranded (152)(1)c. As a part of the lexical phrase, it must delete in its entirety.

- (152) Joy be riding the train to work, and  
 a. \*Celestine be ~~riding the train to work~~, too.  
 b. Celestine do ~~be riding the train to work~~, too.  
 c. \*Celestine do be ~~riding the train to work~~, too.



The habitual *be* data in the environment of ellipsis mirror that of main verbs in MAE. The lexical phrase AspP, must be deleted in elliptical environments, and ellipsis is only

licensed when a functional morpheme is merged in T. This data proves that ellipsis is not sensitive to specific phrase type. Instead, ellipsis licensing is sensitive to a functional/lexical agree relation predicted by the Agree<sub>OCE</sub> analysis.

#### 4.4.3 More Aspectual Markers in AAE

We just saw that aspectual marker *be<sub>asp</sub>* in AAE which heads AspP is not a licenser for ellipsis. When VPE occurs in sentences with *be<sub>asp</sub>*, *do*-support is needed, and *be<sub>asp</sub>* becomes the target of VPE (153).

(153) Bruce be running his mouth, and John do/\*be, too.

AAE also has two other aspectual markers, *dən*, and stressed *BIN*. These markers also head the lexical phrase AspP, though *dən* is assumed to be merged in a lower AspP shell. Agree<sub>OCE</sub> predicts that *BIN* and *dən*, like *be<sub>asp</sub>*, should be the targets of ellipsis. Thus, given ellipsis, phrases headed by these elements should be deleted. Furthermore, these elements should not be stranded. This is exactly what we find. We will see that neither can be a licensers of VPE, but instead their lexical phrases are the targets of ellipsis.

The marker *BIN* suggests that an eventuality started in the remote past, and continues into the present. Aspectual *BIN* differs from the past participle (henceforth, *been*) phonologically in that it must be stressed. Syntactically, unlike *been*, *BIN* is not compatible with adverbials such as “for a long time”. Stressed *BIN* remains uninflected and can take a range of predicates, adjectives, nouns, prepositions, adverbs, but also verbal complements.

- (154) Joe *BIN* married (\*for a long time).  
 (155) Joe been married for a long time.

When ellipsis occurs, we see in (156) that *BIN* cannot precede an ellipsis site. For the elliptical utterance with *BIN* to be licit, a c-commanding functional morpheme must be merged (here *was* and *did* respectively). As a consequence, the lexical phrase headed by *BIN* must elide. Furthermore, unlike auxiliary *been*, *BIN* cannot optionally be stranded.<sup>46</sup>

- (156) Joe *BIN* married, and  
       a. \*Sue also told you he *BIN*.  
       b. Sue also told you he was.  
       c. \*Sue also told you he was *BIN*.  
 (157) Joe *BIN* went to college, and  
       d. \*his brother *BIN*, too.  
       e. his brother did, too.  
       f. \*his brother did *BIN*, too.

Again, these ellipsis facts are predicted by Agree<sub>OCE</sub>. The lexical phrase, in AspP requires valuation of [*uE*] and probes leftward to c-commanding functional heads looking for a morpheme with [*E*]. In (156)a, no functional morpheme c-commands and no [*E*] is available to establish the agree relation that licenses ellipsis. In (156)b, a functional morpheme, *was*, is available. Therefore, [*uE*] on the AspP can be valued as *was* carries [*E*]. Agree can be satisfied, and ellipsis is available at PF.

The last aspectual marker we will discuss is *dən* which signifies that an event has ended. It is always rendered in a phonologically reduced form, setting it apart from verbal *done* phonologically. It can also co-occur with verbal *done*.

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<sup>46</sup> "John has been married and Sarah also has (been) married" is attested.

- (158) They *dən* changed their minds.  
 “They have changed their minds.”

- (159) The Beyhive *dən* done it again!  
 “The Beyhive has done it again”

This marker is unique from *be<sub>asp</sub>* and *BIN* in that it can follow both markers. The marker *dən* occupies a somewhat lower lexical phrase than *be<sub>asp</sub>* and *BIN*. It should also be deleted in elliptical utterances. This is, in fact, the case. Example (160) shows that *dən*, like *be* and *BIN*, cannot precede an ellipsis site, nor can it be stranded. Instead, it is a target for ellipsis ((160)b) and cannot be stranded ((160)c). Again, this is what is predicted by Agree<sub>OCE</sub>.

- (160) Some Trump supporters *dən* lost they minds,  
 a. \*which gotta mean America *dən* ~~lost they mind~~, too.  
 b. which gotta mean America did ~~*dən* lost they mind~~, too.

We have now seen that each of the aspectual markers in AAE prove to be the target of ellipsis, and can elide only when preceded by a c-commanding functional exponent. The behavior of tag questions further demonstrates that in utterances with AspP elements, a c-commanding functional morpheme is required.

- (161) She *be* tearing up them Keto snacks,  
 a. don’t she?  
 b. \**be’nt she?*

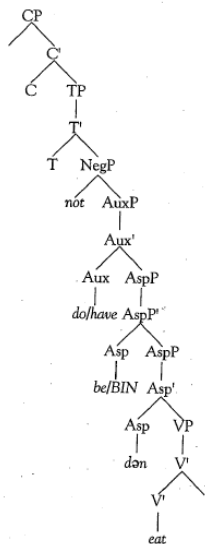
In this section we have described the AAE aspectual markers as occupying an aspectual node higher than vP but lower than TP and NegP. We have assumed based on work by Green that AAE has more than one AspP (akin to AuxP): one that is local to T and compatible with aspectual *have*, and another which is a part of the verbal complex (See Akmaijian, Wassow and Steele 1979 for a similar discussion of auxiliaries in the verbal

complex in MAE). The data in (162) and (163) below confirm the structure we have assumed as these AAE-specific aspectual elements that can occur with *have* are structurally lower than *have*.

- (162) Joe could’a **BIN** rode that bike.<sup>47</sup>  
‘Joe could have rode that bike starting a long time ago.’
- (163) Sally should’a **dən** left by now.  
‘Sally should have already left by now.’

Green (1998:58 example 68) gave the following structure for these markers.

(G68)



While this tree suggests that *be<sub>asp</sub>*, *BIN*, and *dən* occupy AspP, Green (2016:cf) suggests that in current terms, vP is more likely their syntactic locus. Assuming these AAE-specific aspectual markers may be associated with vP gives us an even better picture of why these aspectual elements are deleted in elliptical utterances, yet elements like the contracted form of aspectual *have* are retained. Example (164) and (165) show that, when stacked, these AAE aspectual markers still both elide.

<sup>47</sup> The status of *have* in AAE is interesting because due to a system of person agreement leveling, this form is not typically produced (They has a right to be here), though the meaning is still available. However, the contracted form is widely attested.



(164) Sally should’a *dən* left by now, and she know she should’a ~~*dən* left by now~~.  
 “Sally should have left, and she knows she should have.”

(165) Sally should’a *BIN dən* left by now; she know she should’a ~~*BIN dən* left by now~~.  
 “Sally should have left a long time ago, and she knows she should have.”

In summary, we have seen that ellipsis data for AAE aspectual markers are predicted by Agree<sub>OCE</sub>. These aspectual elements head lexical phrases, and delete in the environment of ellipsis. Sentences with *be<sub>asp</sub>*, *BIN*, and *dən* require auxiliaries, modals or do-support, c-commanding functional morphemes, for ellipsis to be licensed. Without the functional elements, ellipsis cannot be licensed because the lexical phrase cannot find valuation for [*uE*] and enter into the agree relation necessary for licensing. When a functional morpheme is merged, however, it carries the necessary [*E*] feature into the derivation. Agreement between the functional morpheme and lexical phrase (AspP/vP) can occur, and ellipsis is then available at PF. In the next section we discuss the role of negation in licensing ellipsis. We will see that Agree<sub>OCE</sub> correctly predicts that *not* is a licenser of ellipsis due to its status as a functional morpheme.

#### 4.4.4 Negation

Negation can be represented many ways in sentences, through the functional phrase NegP, or it can be arbitrated by semantic operators. Ellipsis licensing occurs specifically following *not*, which is said to head NegP (Potsdam 1997). Other forms of negation such as with NPIs or contraction do not license ellipsis. Licensing by *not* to the exclusion of NPIs is a natural consequence of Agree<sub>OCE</sub>. Again, based on Agree<sub>OCE</sub> we would expect that elements that head a functional phrase, like *not*, should license for they actually bring

the agree feature [E] into the derivation. Negative items that are not phonologically realized in a c-commanding functional node, should not license ellipsis. This is what we see. In example (166), *not* precedes the ellipsis site, and the LexP, *fine*, is the target. We can identify the licenser and target because no ellipsis occurs without stranding of *not* as (167) shows, and the entire LexP must delete as the ungrammaticality of (168) shows. These have been our diagnostics throughout.

- (166) He is really fine but she is not ~~really fine~~.  
 (167) He is not really fine and she is ~~not really fine~~, too.  
 (168) \*He is not really fine and she is not ~~really fine~~, too.

Agree<sub>OCE</sub> predicts that *not* should license ellipsis, but also that its contracted form will not. Because *not* can only contract onto auxiliaries, copula and modals, it is not possible to show that contracted negation alone cannot license ellipsis. However, our evidence will come from instances where ellipsis is licensed and *not* contracts. These utterances always require the full form of a functional morpheme to be merged in T. Notice that while the contracted negation alone may not license, but in line with Agree<sub>OCE</sub>, it must be stranded.

- (169) He is fine, she isn't ~~fine~~.  
 (170) You should run, but they shouldn't ~~run~~.

At this point we see that *not* meets the criteria as an ellipsis licenser according to Agree<sub>OCE</sub> as it precedes ellipsis sites in its full form and must be stranded. However, *not* typically is accompanied by an element in T, which could also be a licenser of ellipsis. However, we do have independent evidence that *not* itself is a licenser of VPE when we consider subjunctive clauses in MAE.

Zanuttini (1991) observed that subjunctive clauses appear to lack an IP projection due to the fact that these clauses cannot contain an auxiliary (171), and main verbs must also be uninflected for tense (172).

(171) The police require that the spectators (\*must) stand behind the barricade.  
'The police require that the spectators stand behind the barricade.'

(172) He demanded that the successful candidate learn(\*ed) German.  
'He demanded that the successful candidate be able to speak German.'

In fact, Potsdam (1997) presents data that show that no auxiliary or modal can be inserted into such sentences even with emphasis.<sup>48</sup> Because modals and auxiliaries are licensors for ellipsis but are incompatible with these constructions, some assumed that ellipsis was incompatible with these constructions. Potsdam, however, showed that ellipsis in the subjunctive clause *is* available in the presence of a morphologically realized negative element as examples (173) and (174) show.

(173) Kim needs to be there, but it is better that the other organizers **not** Δ.

(174) A: Should we wake Dad?

B: No! It's absolutely imperative that you **not** Δ.

Here we see that *not*, a morphological element that heads NegP, licenses ellipsis. Ellipsis is not possible in these constructions unless following *not*. This is very compelling evidence supporting the Agree<sub>OCE</sub> analysis. In the case of (174), ellipsis is licensed because the functional morpheme *not* provides the feature that can value [*uE*] on the LexP *wake Dad*. The LexP probes leftward and with valuation from *not*, an agree relation is established rendering the LexP, however, available for deletion at PF. When *not* does

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<sup>48</sup> Following previous literature (Roberts 1985, Baltin 1993, Lasnik 1995, and Potsdam 1996), Potsdam (1997) suggests that the IP *is* present in subjunctive clauses headed by a morphologically unrealized modal.

not surface, the LexP can find no c-commanding functional head. No valuation of [*uE*] occurs, so no agreement can be established and ellipsis is not licensed.

Ultimately, the data show that ellipsis licensing does not depend on the mere presence of a syntactic head (here T), given the fact that modals are not compatible with subjunctive constructions. Instead, it is a c-commanding morpheme phonologically realized in a functional head that allows for ellipsis to be licensed.

I only briefly acknowledged the behavior of contracted negation in this section, but will put off a longer discussion of the effects of contracted/reduced morphological forms and ellipsis until Chapter 5. There I will describe in detail how Agree<sub>OCE</sub> also predicts that contracted and reduced forms of any morpheme are not suitable licensors of ellipsis. I will argue that contracted elements are not merely phonologically reduced variants of their full forms. Instead, I will show that they are allomorphs distinct from their full forms and lack the ability to agree. At this stage, we see that the negation data confirm that c-commanding functional morphemes license ellipsis and, again, lexical phrases are targets.

#### **4.4.5 Finite and Non-finite Be in MAE**

We have seen evidence earlier in the chapter that *have* can be both licensor and target of ellipsis based on its structural position. The ellipsis facts look similar for *be* in Mainstream English. For instance, when *have* raises to T it can become a licensor of ellipsis in its functional position. Similarly, the copula and auxiliary *be* are said to raise to

T, and also license ellipsis in this location (175). This is in line with what is predicted by Agree<sub>OCE</sub>. Finite *be*, here can move to T and license ellipsis.

(175) I should be writing, and, in fact, I am ~~writing~~.

(176) \*I should be writing, and, in fact, I ~~am writing~~.

Agree<sub>OCE</sub> also predicts that finite *be* must be stranded in ellipsis when T is already occupied. Example (177) shows that this is the case. Here finite *be* cannot be deleted. *Should* occupies T and is a potential licenser of VPE, yet finite *be* must still be stranded.

(177) Jamele said I should be writing, and I really should (be) ~~writing~~.<sup>49</sup>

Non-finite *be*, on the other hand, is assumed to surface in a lexical phrase. Agree<sub>OCE</sub> predicts that non-finite *be* should be the target of deletion, and should not be stranded.

Let's take a command for example. In something like *be cool*, there is assumed to be no VP layer or Tense. No ellipsis can occur with this form which example (178) shows.

Non-finite *be* cannot license ellipsis but must be the target for deletion requiring the insertion of some c-commanding functional material as in (179).

(178) They said, be cool, so I was/\*be.

(179) They said, be cool, and I will ~~be cool~~.

We have shown that finite *be* is a licenser of ellipsis if it has moved to a functional head, while non-finite *be*, which is assumed to stay low in vP, is the target of ellipsis. Agree<sub>OCE</sub> explains these ellipsis facts. Infinitival *to* can precede non-finite *be* in elliptical constructions suggesting that *to* is also a licenser of VPE. In the next section we will see that licensing of ellipsis by *to* is predicted by Agree<sub>OCE</sub>.

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<sup>49</sup> See Aelbrecht and Harwood (2015) for account of optional stranding.

#### 4.4.6 Infinitival *to*

Infinitival *to* takes a VP complement and is said to head the TP functional phrase (Radford 2009: 41-43). According to Agree<sub>OCE</sub> we should expect that *to* should be a potential licenser of ellipsis, and it should be stranded in elliptical utterances. This is in fact what we see. In example (180) ellipsis is possible with *to*. The utterance where *to* is deleted in (181) is ungrammatical. We know that main verbs (such as *wants* below) cannot license ellipsis. Yet, when *to* is merged, ellipsis is possible, thus *to* must be the ellipsis licenser.

- (180) Ana wants to run, and Michelle also wants to ~~run~~.  
(181) \*Ana wants to run, and Michelle also wants ~~to run~~.

Similarly, in (182) we see clausal negation preceding *to*, yet because the sentence would otherwise be ungrammatical if *to* were to be deleted, *to* must license ellipsis here.

- (182) I told her to run, and you told him not \*(to) ~~run~~.<sup>50</sup>

Both examples are predicted by Agree<sub>OCE</sub>. The functional morpheme, *to*, precedes the vP, *run*. Ellipsis is licensed when that VP probes leftward and finds a functional morpheme in T. Because *to* c-commands the lexical phrase, it's [E] feature values [ $\mu$ E] on the lexical phrase, cements the agree relationship, and makes the VP available for deletion at PF.

Herein, we have seen that Agree<sub>OCE</sub> predicts the ellipsis facts for infinitival *to*. Because *to* is a functional morpheme like others that can occupy T, and it bears [E] as a part of its lexical entry, it can license ellipsis under the current analysis.

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<sup>50</sup> Notice that even phonological reduction of *to* in (182) (*tə*) renders the sentence ungrammatical. This further suggests that *to* is important for ellipsis licensing here.

So far we have confirmed that Agree<sub>OCE</sub> predicts the range of ellipsis facts presented. In each case, from main verbs, to habitual *be*, finite and non-finite *be*, *and* infinitival *to* morphemes that can occupy a functional head license ellipsis, and those in lexical phrases systematically delete in elliptical environments. All of these licensors share the same syntactic position, they are all structural exponents of functional heads in TP. Lastly, we will see evidence that auxiliaries and modals are also predicted to license ellipsis by Agree<sub>OCE</sub>.

#### 4.4.7 Auxiliaries and Modals

In this last sub section, we will again see that Agree<sub>OCE</sub> also predicts licensing of ellipsis for auxiliaries and modals. Auxiliaries and modals head T and AuxP, functional phrases. Thus, Agree<sub>OCE</sub> predicts that modals and auxiliaries would thus be licensors of ellipsis. They should not be deleted, but must be stranded. Instead, when ellipsis occurs, the lexical phrase they c-command should delete in its entirety. This is what we see.

In MAE and AAE, full forms of auxiliaries (both past and present tense) can precede an ellipsis site. Furthermore, the auxiliary must be stranded when ellipsis occurs.

- (183) You are<sub>MAE</sub>, is<sub>AAE</sub>/were<sub>MAE</sub>, was<sub>AAE</sub> eating Keto, and
- a. she is/was eating Keto, too.
  - b. \*she is/~~was eating Keto~~, too.
  - c. she is/was eating ~~Keto~~, too.

Notice also that the lexical phrase *eating Keto* is targeted for deletion and that no portion can be stranded as (183)c shows.

In both varieties, contracted allomorphs are available for present tense auxiliaries (-s, and -r) preceding a predicate, but these allomorphs fail to license ellipsis.

(184) \*You're<sub>MAE</sub>/You's<sub>AAE</sub> eating, and she's ~~eating~~, too.

Furthermore, in AAE, present tense auxiliaries (excluding 1<sup>st</sup> person) can be realized as zero. As discussed in Chapter 3, zero-auxiliaries, like the contracted auxiliaries, also fail to license ellipsis.

(185) \*You'Ø eating, and she Ø ~~eating~~, too.

Again, Chapter 5 will spell out why reduced and contracted functional morphemes are not predicted to license by Agree<sub>OCE</sub>.

#### 4.4.8 The Copula

The copula operates similarly to auxiliaries in both varieties. Full forms prove to be licensors, as ellipsis only occurs when a phonologically realized copula surfaces in functional head position. The copula also must be stranded in these utterance. The lexical phrase it C-commands deletes in its entirety.

(186) \*They're/Ø happy, and she's/Ø ~~happy~~, too.

(187) They're/Ø happy, and she is ~~happy~~, too.

The examples above show that Agree<sub>OCE</sub> also predicts the ellipsis facts for the copula.

The LexP, when c-commanded by a full copula, can undergo ellipsis. Here, *is* bears [E], and thus the LexP *happy* can find [*uE*] valuation for agreement making ellipsis possible.

This is interesting given that no VP is assumed in these constructions. There are a few different treatments of these constructions. Some suggest that copular *be* selects an AdjP complement for instance. Others like Bowers (1993) suggest that a general category,



PredP, is selected here. Copular constructions are more evidence that it is not simply *vP* that is targeted for deletion in elliptical utterances but any LexP.

Like auxiliaries, modals (may, can, must, might, could, would, should, shall, will, have) are also predicted to license ellipsis by Agree<sub>OCE</sub> (See Figure 10). Importantly, however, contracted allomorphs like the (-l) form associated with *will*, and the (-d) form associated with *would* are not appropriate licensors (188)-(190).

- (188) Andraya should eat cookies, and Tatum will ~~eat cookies~~.  
(189) \*Andraya will eat cookies, and also Tatum'll ~~eat cookies~~.  
(190) \*Andraya would eat cookies, and also Tatum'd ~~eat cookies~~.

A major prediction of Agree<sub>OCE</sub> is that functional morphemes should never be targets of ellipsis. Thus, because a number of modals can co-occur in one sentence, we should expect that these modals should be stranded, not deleted with the exception of *have* and *be* which can have either a functional position (AuxP) or remain lower (*vP*). In modal stacking<sup>51</sup>, the highest modal is assumed to occupy T, and those that follow occupy intermediate functional projections above *vP*. Hardwood (2013:17 ex 16), for example, suggests that these lower elements occupy AuxP shells like those discussed by Larson for VP. We see that elements higher than *vP* *can* be stranded in the following elliptical utterances.

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<sup>51</sup> In AAE and other varieties of English like Appalachian English, "double modal" constructions are attested (might could, should ought etc). While these constructions have been discussed (See Elsmann 2008?), there is not a clear consensus about double modal structure in the literature, nor enough data with double modals and ellipsis to include them in this analysis. Personally, as a "might could" speaker, if you asked me whether I could do ellipsis with my double modals I'd say I think I might could. But more data is needed to confirm this, and understand the larger facts about licensing (like how double modals interact with negation, for example).

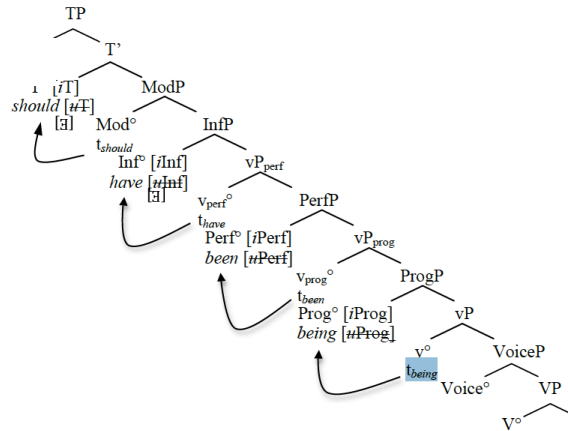
- (191) The kale should have been being eaten, and
- a. the avocado should have ~~been being eaten~~, too.
  - b. the avocado should've ~~been being eaten~~, too.
  - c. the avocado should have ~~been being eaten~~, too.
  - d. the avocado should have been ~~being eaten~~, too.
  - e. \*the avocado should have been being ~~eaten~~, too.

Ellipsis is available when each modal is stranded, but the utterance becomes ungrammatical when *being* is stranded. In example (191)e, we know *being* is merged in a lexical node based on its progressive morphology. For instance, Aelbrecht and Harwood (2015)<sup>52</sup> propose that due to the progressive morphology on *being* it is associated with a progressive phrase low in the vP domain. Of course, much research has corroborated that elements in vP are targets of ellipsis (Aelbrecht and Harwood 2015, Akmajian et al. 1979, Sag 1976, Bošković 2014, Sailor 2012 and Thoms 2012). Similarly, Agree<sub>OCE</sub> predicts that morphemes that head lexical phrases should be the target of ellipsis. The data corroborate this, as the utterance is ungrammatical when *being* is stranded. This is a natural consequence of the current analysis. Here, *being* heads a LexP within vP. For ellipsis to occur, the LexP must find [E] to value its uninterpretable [E] and enter into an agree relation. If *being* can agree with a c-commanding functional morpheme (there are many in this example) then the complete phrase is marked for deletion (See example (192)). I remain agnostic about specific node labels in the structure presented by Aelbrecht and Harwood below. For the purposes of this analysis we could consider the functional layers AuxPs. Regardless, when looking at the structure, we see that the position of *being* in a lexical phrase lends itself to deletion under Agree<sub>OCE</sub>.

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<sup>52</sup> Henceforth A&H.

(192)



In this section, again we have seen that auxiliaries, copula and modals in their full forms are licensors of ellipsis, as predicted by Agree<sub>OCE</sub>. All morphemes that head functional phrases were shown to precede ellipsis sites, and be mandatorily stranded in the presence of other potential licensors. Neither Zero forms nor contracted forms were shown to license ellipsis. Furthermore, elements in lexical phrases were shown to delete in elliptical utterances.

#### 4.5 Agree with the Agree<sub>OCE</sub>

The data we've discussed up till now show that morphological elements in a functional head license ellipsis, and the lexical phrases they c-command are the targets of ellipsis. This is accounted for by the Agree<sub>OCE</sub> analysis wherein ellipsis is licensed when an Agree relation is established between a phonologically realized c-commanding functional morpheme, the licensor, and a lexical phrase, the target of ellipsis. The analysis even explained AAE data where zero-forms fail to license ellipsis, though optionality is supported outside of elliptical contexts.

- (193) John  $\emptyset$ /is running, and Sally \* $\emptyset$ /is, too.  
 (194) I like John('s) running, and Sally's/\* $\emptyset$ , too.

Agree<sub>OCE</sub> is the only ellipsis licensing analysis that can account for ellipsis given AAE zero forms. Feature-based accounts overgenerate. I have shown that Agree<sub>OCE</sub> is maximally explanatory for ellipsis licensing crosslinguistically—from other Englishes to Verb Stranding Verb Phrase Ellipsis in Hebrew, Irish and Swahili. In Agree<sub>OCE</sub>, I have outlined a system of ellipsis licensing by an agree relation for both VPE/NPE. The system requires that c-commanding functional morphemes bear [E] and are responsible for licensing. Thus no independent features, or syntactic node alone can be an appropriate licenser of ellipsis as previous accounts assume (Lobeck 1995, Merchant 2001, Aelbrecht 2009). Overtness is crucial to licensing.

Overall, I have focused on the licensing capabilities of functional morphemes. One issue I have yet to address, however, is the fact that, like zero auxiliaries, contracted allomorphs are also assumed to be functional morphemes, but they fail to license ellipsis. While contracted forms are not full forms by any means, they are phonologically realized and morphologically represented at surface structure unlike zero forms. This raises the question: What's so different about *is* and *–s* such that the weaker form cannot license ellipsis? Therefore, Agree<sub>OCE</sub> must also show us why full copula and auxiliaries can establish Agree relations sufficient for deletion, while contracted forms cannot. What's more, for the analysis to be maximally explanatory, it would have to explain the curious fact that the *–s* morpheme in *possessives* is an effective licenser, while the same morpheme in contracted copula and auxiliaries fail to license ellipsis.

In Chapter 5, I show that the ungrammaticality of contracted elements with ellipsis is really a fact related to the inability of contracted elements to Agree. I show that the formalization of Agree<sub>OCE</sub> in fact predicts that contracted forms should be inappropriate licensors. To do so, I follow Anderson (2005, 2008) in assuming contracted copula and auxiliaries are simple clitics. Specifically, Anderson shows that two basic properties of clitics are that i) clitics are structurally and syntactically associated with the position of their host, and ii) clitics are post-lexical elements. Under this view, I will propose that contracted elements do not occupy c-commanding functional heads, and thus they cannot become effective licensors of ellipsis.

I give three potential accounts for why contracted copula, auxiliaries, and modals fail to license ellipsis. The first proposal suggests that only the “strongest” morphological forms bear [E] in line with Structural Deficiency, an account proposed by Cardinaletti and Starke (1999) to describe differences in features between strong, weak and clitic forms of pronouns. This view predicts that full morphological forms (*is* for example) of functional heads bear [E], while reduced and clitic forms (*əz* and *-s*) do not. This account proves to be most explanatory. I also lay out two plausible yet weaker accounts. The C-command account assumes that in the syntax the contracted form is adjoined to its host in a position that does not c-command lexical phrases. This renders the [E] feature invisible to the probe of the target, as it doesn’t c-command. Thus, it is unavailable for licensing. The Timing account engages with the idea that clitics are post-lexical, and thus are not present in syntax in time for licensing to occur.

## CHAPTER 5

### WHY CONTRACTION CANNOT AGREE<sub>OCE</sub>

#### 5.1 Introduction

This chapter addresses this widely considered puzzle: Why can't ellipsis occur following a contracted auxiliary? We have seen evidence that licensing of ellipsis relies on an *overt* morpheme occupying a functional head. In Chapter 3, for example, we saw that *overt* auxiliaries in AAE license ellipsis, but zero elements do not. Agree<sub>OCE</sub>, the analysis showing licensing of ellipsis to be based on overt functional morphemes and a lexical phrase, predicted that alternation. However, it is less obvious why contracted elements like auxiliaries should not license because, unlike zero, they are indeed phonologically realized morphemes.

In this chapter I make the case that contracted elements cannot license ellipsis because they lack specific elements required to form the necessary Agree relation. I will propose three possible accounts to explain why contracted forms do not license ellipsis. These accounts are below:

(195) 3 Potential Accounts of Non-licensing:

1. The Agree-FAIL Account: Weak and clitic forms do not bear the [E] feature under Structural Deficiency (Cardinaletti and Starke 1999), and thus fail to license because they lack the feature necessary to license ellipsis.
2. The C-Command Account: Failure to license is based on failure of contracted elements to c-command.
3. The Timing Account: Ellipsis precedes contraction, destroying the phonological environment that would allow contraction to occur.

Ultimately, I take the Agree-FAIL account (Structural Deficiency) to be the most robust due to its ability to predict the inability of contracted ('s), zero (Ø), and weak forms (/əz/) to license ellipsis. I will also present the two other proposals along with their limitations.

## 5.2 Contraction Puzzle and the Data

It has been shown that contracted copula/auxiliaries cannot precede an ellipsis site based on the type of data presented in (196) (King 1970, Zwicky 1970, Baker 1971 a.o.).

Sometimes, by extension, it is assumed that contraction cannot precede ellipsis. However, this generalization is not entirely accurate as the example of modal stacking in (197) shows. In this example contracted *have* precedes an ellipsis site, which should make the utterance ungrammatical under the early treatments.

- (196) \*I see Little John's about to turn up, and I hope Nikki's ~~about to turn up~~, too.  
 (197) Little John should have turned up, and Nikki should've ~~turned up~~, also.

The grammaticality of (197) shows that it is not the case that contraction is never permitted *preceding* an ellipsis site. Instead, the important observation here is that contracted elements cannot *license* ellipsis. Furthermore, I believe the data that have supported this generalization for so long are really displaying an underlying fact about the importance of overtiness i.e. the crucial role morphemic expression plays in licensing ellipsis.

While the example above in (197) testifies to the fact that some contracted elements *can* precede ellipsis site, I contend that what is crucial is that contracted elements cannot *license* ellipsis. Additionally, it is not only contracted forms of verbs that cannot license

ellipsis, but also phonologically reduced forms of these same verbs as well. Below in the examples in (198) we see that even phonologically realized but reduced auxiliary /əz/ fails to license ellipsis.

- (198) Dorinda is lovely, and  
a. I also know her sister is.  
b. \*I also know her sister əz.  
c. \*I also know her sister's.

In the example above, only the full form of the copula (is) licenses, while both the reduced (əz) and contracted ('s) forms do not. Full and reduced forms are both said to have the same syntactic position, and both forms are indeed phonologically realized (*overt*). Therefore, any fully explanatory account of ellipsis licensing must also be able to make sense of the non-licensing capabilities of contracted and reduced forms.

Indeed, the non-licensing of contracted and reduced forms are actually predicted by Agree<sub>OCE</sub> as it requires a phonologically realized (*overt*) element in a functional head to license ellipsis. I propose that contracted elements cannot license ellipsis because clitics and reduced forms simply lack either the featural, configurational or derivational requirements crucial to agree. Thus, the fact that contracted and phonologically weak elements cannot license ellipsis can be seen as a natural consequence of Agree<sub>OCE</sub> when we consider the following potential accounts. No licensing could occur if there was evidence that the contracted/reduced form lacked the [E] feature (Agree<sub>FAIL</sub>), if contracted elements are merged after PF deletion (Timing), or if the contracted element did not C-command the ellipsis site (C-Command).



### 5.3 AgreeFAIL, doesn't

AgreeFAIL proposes that contracted and weak functional forms cannot license ellipsis, because they do not have the [E] feature as a part of their feature bundle. Without [E], an *overt* functional morpheme can't agree, and thus will never license ellipsis.

1. The AgreeFAIL Account: Weak and clitic forms do not bear the [E] feature based on structural deficiency (Cardinaletti and Starke 1999), and thus fail to license ellipsis because they simply can't agree.

Though at first this may seem stipulative, there is evidence to suggest that weak and clitic allomorphs of strong morphemic forms can and do have different feature constellations based on the theory of Structural Deficiency proposed for pronouns in Romance by Cardinaletti and Starke.

Cardinaletti and Starke (1999) observed that, for example, the Italian pronouns had differing distributions. The strong form had greater distribution; the weak and clitic forms were used in a more restricted set of environments comparatively. This observation led the authors to propose that the hierarchy in distribution of morphological forms (strong<weak<clitic) also paralleled a relative hierarchy in the number of features posited for each form. On this proposal, the strong form of a pronoun was shown to have the most features, the weak form, a subset of those features, and the clitic form, a mere subset of the features of the weak form. Cardinaletti and Starke used the distribution of various pronouns to explain the somewhat impoverished nature of some forms.

While the specific details of Cardinaletti and Starke's account are not germane to this chapter, we will assume the key observation of feature deficiency related to morpheme status in our discussion of the varying forms of functional elements: the greater the distribution, the greater the proposed features (hereafter, Structural Deficiency). Let's assume, for example, that the same should be said for contracted copula. The hierarchy under Structural Deficiency is [strong > weak > clitic] where the strong form is assumed to have the most syntactic features. Thus, for English auxiliaries, the hierarchy is [is > əz > 's < ∅]. Under structural deficiency, we should expect to see a greater distribution for the strongest form. This is exactly what we find for the English auxiliary. For instance, English full auxiliaries are the only morphological forms that undergo movement in the formation of questions (*Is she here?* \**'S she here?*). Furthermore, quite relevant to our argument, only full auxiliaries can occur in elliptical environments as (199) shows.

- (199) a Sam is swimming, and John is *e* too.  
       b \*Sam is swimming, and John əz *e* too.  
       c \*Sam is swimming, and John's *e* too.

Again, only the strongest form, *is* here, can occur in elliptical environments, while even the merely phonologically reduced form [əz] cannot occur. The ellipsis data and movement data give two distinct syntactic environments whereby only the full form can surface. Thus, we have a basis to assume that the concept of Structural Deficiency applies here, and that we might assume more features are available to full auxiliaries. Relevant to the current paper, I will take it one step further and propose that weak and clitic forms are deficient in that they do not possess the [E] feature. This accounts for the inability of contracted and reduced forms to license ellipsis because only full forms carry the

necessary agreement feature. If this is the case, Agree<sub>OCE</sub> rightly predicts that only the strong form would license ellipsis. The other forms cannot license ellipsis because without the [E] feature, they cannot enter the necessary agree relation with a lexical phrase. The greater distribution of full auxiliaries supports the possibility that they may have more features, specifically the [E] feature.

### 5.3.1 Existential *There*, Contraction and Ellipsis: Evidence for Structural Deficiency

Another possible example that lends credence to the idea that strong forms may have more features, particularly agreement features, is Non-agreement of contraction in *there* constructions. Previous work on MAE shows that in many cases participants use non-agreeing verbs in existential *there* constructions.

- (200) Agreement: There are more new subdivisions in the south side of town.
- (201) a. Non-agreement with full verb: There is basically no jobs in the industry.  
       b. Non-agreement with clitic: There's only two thrift shops down there.

While some assume that production of the non-agreeing forms are simply speech production errors, many studies confirm that the non-agreeing forms are produced anywhere from 13%-73% of the time even among educated, middle class speakers (Riordan 2007). Krejci (in prep) states that the fact that the non-agreeing forms are produced with greater frequency goes against previously held beliefs that “non-standard” forms like non-agreement should be produced much less than canonical forms in the variety. Furthermore, Krejci proposes that the elevated frequency of non-agreement is due to the conflation of differing types of non-agreement data. In her empirical work, Krejci shows that non-agreement patterns were quite different when individuals used a

clitic vs. a full verb. Given a choice between non-agreement with a clitic and agreement with the full form followed by a plural pivot, younger participants preferred non-agreement with the clitic. This finding reached significance. Non-agreement with a full form was disfavored. This finding suggests that there is a toleration of non-agreement with a clitic that is not readily available with the full form.

For these participants, the full form seemingly *must* agree. However, there is no such agreement requirement for the clitic; the non-agreeing clitic is preferred! These data seem to align with what would be expected under structural deficiency. The lack of licensing points to the impoverished nature of clitics/weak forms with respect to the amount of features available for full forms. This supports the premise that contracted elements lack the features of the full forms. If the clitic element does not have the necessary features to agree even in number for some speakers, we could safely conjecture that these forms may also lack the [E] feature necessary to license ellipsis.

In this dissertation I have proposed in Agree<sub>OCE</sub> that ellipsis is licensed by agree and that an agreement feature is necessary for the agree relation to be established. Since it is the case that the clitic does not display general agreement requirements, then we might also assume it does not have the features necessary for the agreement that licenses ellipsis. We can also extend this line of reasoning to phonologically reduced elements as well.

The Agree<sub>FAIL</sub> account (structural deficiency) suggests that only the full form of a phonological element bears [E]. Agree<sub>FAIL</sub>, thus, also helps us see why –s morphology

for possessives *does* license ellipsis, while the homophonous contracted copula (–s) does not. Possessive morphemes (–s, and –n as in *mine*) are the fullest forms of the possessive morpheme. Furthermore, these elements are merged in a functional head, D, preceding their complement, lexical phrase NP. In African American English, we see that there are variants of possessive forms, –s or  $\emptyset$  for example. However, only the full forms (–s, –n or –ns in communities where *mines* is produced) can license ellipsis.

(202) My love for God is/  $\emptyset$  real, and Sharon's/\* $\emptyset$  is too.

Thus, based on the AgreeFAIL account, for NP ellipsis, the strongest form of the possessive morpheme (–s) carries the [E] feature and licenses ellipsis. The weak form ( $\emptyset$ ) does not carry [E] and cannot license ellipsis. The contracted copula, on the other hand, though phonologically realized and homophonous with the possessive morpheme, is not the strongest form of the copula. Therefore, because –s is not the strongest, it does not carry [E] and cannot license ellipsis. The AgreeFAIL account (structural deficiency) predicts the range of data related to the non-licensing of contracted and phonologically reduced elements. Below I put forth two other possible proposals, and outline their limitations.

#### 5.4 C-Command and Timing Accounts

We have seen that ellipsis is licensed by an agree relationship between an overt morpheme in a functional head and a lexical phrase that it C-commands. We have been grappling with the question of why contracted elements cannot license ellipsis given that

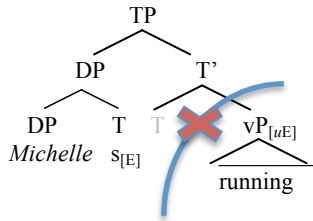
they are at least phonologically realized variants of functional elements. The AgreeFAIL account proposed that contracted copula and auxiliaries could not license ellipsis because they lack the necessary [E] feature based on Structural Deficiency.

Another approach would be to assume that perhaps contracted elements cannot enter into the necessary agree relationship for licensing because such forms do not C-command a lexical phrase. This is the premise of what I will call the C-Command Account.

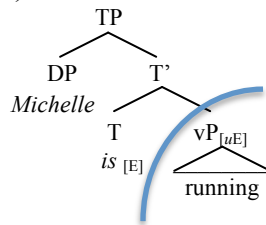
Contraction formation is assumed to follow PF deletion, but once ellipsis occurs, the phonological conditions necessary for ellipsis are no longer present. In the C-Command account both full and contracted forms both carry the [E] feature, but the contracted form does not C-command. While the licensing feature is present for the contracted form on this account, the structural configuration for agreement is not. This account assumes that the full copula is merged in a functional head that C-commands a lexical phrase while the contracted element occupies a non-C-commanding position. Anderson (2010) has describes contracted auxiliaries and copula as phonological clitics that must lean accentually on a host. Here, Anderson is referencing the relation of clitics to their hosts in the domain of prosody. Similarly, Anderson shares that other accounts have proposed that cliticization happens in the syntax (Kaisse 1985). For the purpose of this account, let us assume like Kaisse that contracted elements are merged syntactically in a position associated with their host. Thus, the contracted form would be merged in an  $X^0$  adjoined to the subject DP. If this were the case, the contracted form would not be merged in a C-commanding position, and thus it is not predicted to license ellipsis of the target lexical phrase.

(203) Who is running?

a) Michelle's *e*.



b) Michelle is *e*.



In example (203)a above, the functional element –s does not C-command the lexical phrase and no ellipsis can happen. In example (203)b however, the full copula does C-command and thus can agree with the lexical phrase to license ellipsis. The C-command Account predicts the data that suggest a contracted element cannot license, because it is not in the right syntactic environment.

The C-Command account is interesting, but has some key limitations. First, beyond Anderson's description of the contracted copula in the prosodic realm, there is little to no syntactic evidence to support the idea that the contracted element is merged in different syntactic position than the full form. Contracted elements share similar features and linguistic environments as their full auxiliaries, which suggests that they should also share the same syntactic position in a functional head. Furthermore, we have more reason to doubt that contracted elements share a syntactic position with their host when we evaluate data where the syntactic element that structurally precedes the auxiliary

undergoes movement. This can be seen in the data in examples (204) and (205). In these examples, *who* is assumed to merge in the DP preceding the embedded TP [is coming to dinner]. When *who* undergoes movement, the contracted copula does not also move as the ungrammaticality of (205) makes clear.

(204) Who do you think *t* is coming to dinner?



- (205) a. Who do you think's coming to dinner?  
 b. \*Who's do you think coming to dinner?

This data shows us that the copula maintains its syntactic position in T at least until after movement has taken place. The host that the contracted element adjoins to after WH-movement is the one that precedes it linearly, not structurally in syntax. Thus, It would be quite far fetched to believe that the contracted element would be merged here with *think*, a host that is in a different clause entirely. Equally, there is no precedence or motivation for T to move across clauses in the literature to make the kind of necessary adjunction possible. This leaves little support for a view that C-Command is violated for contracted elements because they merge in syntactic positions associated with their hosts. The movement data cast doubt on the C-command account.

When you consider the elliptical variant of the movement data below, we simply do not have evidence to assume that the contracted element does not C-command as we must assume it is merged in the same position as its full form.

- (206) I don't know who is coming to dinner, but  
 a. who do YOU think is?  
 b. \*who do YOU think's?



If contracted elements are indeed merged in the same position as full forms, the ungrammaticality of (206)b is not predicted. If the contracted element is merged in T, an Agree<sub>OCE</sub> relation would be established, between the lexical phrase and the contracted element prior to movement. Here, deletion should be available. If we assume that the contracted element is merged syntactically in the licensing head, then the ungrammaticality of (206)b helps us rule out C-Command as an account that explains why contraction cannot license ellipsis.

Beyond the movement data, the C-command Account has another glaring limitation as a rationale for why certain functional morphemes fail to license ellipsis. Specifically, phonologically weak forms of functional elements also fail to license ellipsis as (207)c shows.

- (207) I don't know who is coming to dinner, but
- a. who do YOU think is?
  - b. \*who do YOU think's?
  - c. \*who do you think əz?

We have no evidence to believe phonologically reduced forms are located in a syntactic position different than their full counterparts.<sup>53</sup> None the less, just like the contracted variant, the reduced form also fails to license further casting doubt on the validity of the C-command account.

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<sup>53</sup> We have shown in this dissertation that previous assumptions that a contracted element could not precede an ellipsis site were not accurate (recall should've data), but did highlight the fact that contracted elements cannot license ellipsis. In the same way, people have suggested that contraction cannot precede a gap. A point for further research: could requirements for overt morphemes necessary for licensing ellipsis play a role in licensing of a gaps?

## 5.5 Timing Account

The movement data also bring up another potential account regarding why ellipsis may be blocked for contracted elements. We saw in example (207) that syntactic movement occurred before cliticization in question formation. Perhaps we could make the case that the timing of licensing is the factor barring contracted elements from licensing. One way to do this is to assume that cliticization/contraction occurs after ellipsis is licensed or even after PF deletion occurs. We will call this the Timing Account. The Timing Account is based on the premise that contraction occurs at PF, following ellipsis, but ellipsis destroys the environment for contraction. Consider the following example:

- (208) She is going down to the Jordan, and
- (a) He is going down to the Jordan, too.
  - (b) He is *e*, too. ---- ellipsis occurs
  - (c) \*He's *e*, too. ---- ellipsis blocked by contraction

For this account we will assume a model of the Syntax-Prosody Interface consistent with Selkirk (1995). In this theory, prosody is fed by the syntax. The output of syntax is available for linearization at PF whereby organization and selection of morphemes (vocabulary insertion) are subject to prosodic constraints.

In the Timing account, ellipsis is licensed in the syntax. PF deletion occurs, and then lexical insertion of optional forms (reduced or contracted) occurs after rules of prosodic well-formedness are applied. Then prosody segments and groups morphemes. Figure 12, which we will unpack in the coming section, provides examples of the PF processes for non-elliptical and elliptical phrases assumed for the Timing account.

### Figure 12: Strong Start<sup>54</sup> and clitics

Assumptions for the assignment of prosodic phrasing for full and contracted copula given Strong Start.

#### 1. When ellipsis does not occur, the syntax sends A to PF

- A. (John) (is happy.)
- B. PF Deletion (none)
- C. Linearization Options for Surface realization  
(John) (is happy) → a. (John's) (happy)  
b. (John) (is happy)

In A. StrongStart is satisfied as the weak form of the copula is chosen leaving the strong lexical word *happy* to occupy the initial position in the phonological phrase.<sup>55</sup> In b. Faithfulness is satisfied but StrongStart receives a violation.

#### 2. When ellipsis occurs, the syntax sends A to PF

- A. (John) (is *happy*)
- B. PF Deletion (occurs)
- C. (John) (is *happy*) → (John) (is *e*)
- D. Linearization Options for surface realization  
(John) (is *e*) → a. (John) (is *e*)
- E. A variant [(John's) (*e*)] is never a potential surface string as it violates Strong Start and Higher ranked Constraint regarding mapping of Syntax to prosody and thus cannot be considered as a surface string.

In C. StrongStart is NOT violated because the copula is not to the left of anything higher in the prosodic structure. Furthermore, no optional form is available. PF cannot choose a clitic form as it would lead to prosodic ill-formedness as each phrase must minimally contain a prosodic word.

On this view, we would predict that contracted elements do not license ellipsis because they aren't merged in the syntax, and thus are inserted after licensing needs to take place. For this account to be validated, we would need to have evidence of two things: i) that data exists where PF specifications are responsible for giving rise to optional surface forms and ii) ellipsis is shown to occur before PF selection of said non-syntactically motivated surface forms. In fact, this is exactly what we see in pronoun postposing data from Irish and Scotts Gaelic.

<sup>54</sup> **StrongStart:** A violable constraint consisting of an avoidance of stray syllables at the left edge of a phrase. A prosodic constituent optimally begins with a leftmost daughter constituent, which is not lower in the prosodic hierarchy than the constituent that immediately follows.

<sup>55</sup> We can be agnostic to what happens specifically: either moving the copula to be enclitic or inserting a clitic form would do.

### 5.5.1 Pronouns and Ellipsis

Pronoun postposing is defined as the rightward placement of a prosodically and informationally light element at PF. In Irish, the pronoun can optionally occur preceding or following the preposition. Example (209) below reproduced from Elfner (2010:2) shows two licit surface productions in Irish that differ solely on the location of the weak pronoun, *é*.

(209) ‘Liam read it on the train last night.’

a. Léigh Liam ar an traein é aréir.  
read Liam on the train it-WK last-night

b. Léigh Liam ar an traein aréir é.  
read Liam on the train last-night it-WK

Elfner suggests that the optionality arises from a PF preference in surface form for strong elements to surface phrase initially. While the syntax alone would predict that only

(209)a. would surface, based on prosodic constraints Elfner suggests that prosody takes some liberties with the pronoun to satisfy prosodic constraints yielding the string in

(209)b. Elfner proposes that the prosodic constraint that governs this movement preference is Strong Start (stated below).

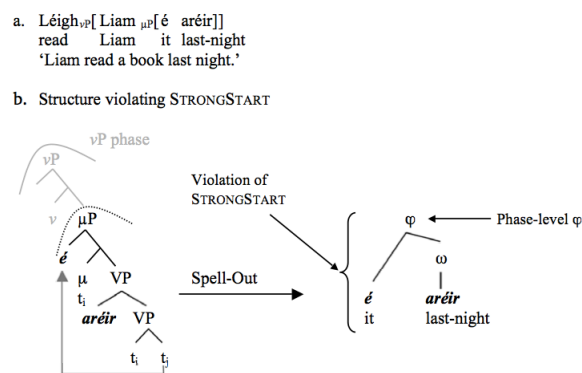
#### **StrongStart prefers**

- A prosodic constituent optimally begins with a leftmost daughter constituent which is not lower in the prosodic hierarchy than the constituent that immediately follows:  
\* (  $\pi_n \pi_{n+1} \dots$

According to Selkirk (2011:35), Strong Start is enacted for prosodic organization “in avoidance of ‘stray’ syllables or feet at the left edge of phonological phrases, an avoidance seen for example in the promotion of initial weak pronouns to  $\omega$  status or in their obligatory rightward displacement (Werle 2009, Elfner 2011).” In other words, Strong Start enacts a preference for phrases with prosodically “strong” elements phrase initially. Based on this theory, to avoid a Strong Start violation, PF will allow for adjustments to the surface string that do not violate high-ranking faithfulness constraints. For Irish, avoidance of Strong Start results in rightward pronoun displacement.

Elfner shows in (210) the spell out process in Irish, which motivates postposing of the pronoun.

(210) ‘Liam read a book last night.’<sup>56</sup>



Here, to avoid a Strong Start violation, rightward movement is selected as an appropriate repair. From Irish we have seen the prosodic motivation for pronoun postposing.

<sup>56</sup> Example reproduced from Elfner 2010:8, example (7).

Adger (2007) also suggests that postposing in Scottish Gaelic similarly occurs at PF.

Crucially, he provides evidence that this process happens *after* ellipsis. To show this,

Adger suggests that if postposing occurred before ellipsis, the data in (211)b.<sup>57</sup> would be predicted

(211) ‘Did you see the accident? I saw it yesterday.’

- a. Am faca tu an tubaist?  
Q saw you the accident  
‘Did you see the accident?’
- b. \*Chunnaic an dè i  
saw yesterday it-FEM  
‘I saw it yesterday.’

However, (211) is not produced in Scotts Gaelic. The grammatical string that surfaces is below in (212).

(212) I saw it yesterday.’

Chunnaic an dè.  
saw yesterday  
‘I saw it yesterday.’|

Adger points out that in the grammatical surface string presented in example (212) the weak pronoun does not surface. The weak pronoun is not stranded suggesting that it was elided in situ before postposing could take place.

Adger thus concludes that such data testifies to the fact that ellipsis or PF deletion must *precede* postposing here. The Scotts Gaelic data not only confirm that PF constraints can augment the surface form of a string (i.e. PF movement), but that these processes are postsyntactic and ellipsis must occur prior to such PF processes. Let us consider that like

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<sup>57</sup> Reproduced from Adger 2007:4 examples 16 and 17.

pronoun postposing, cliticization is also a post-syntactic process occurring after PF deletion. With this as a foundation for the timing account, we will see that we could conceive that contracted elements cannot license ellipsis because they are not available at the time of licensing.

Ultimately, the timing account proposes that like pronoun postposing at PF, contraction in AAE/MAE is postsyntactic, and the PF constraints that operate cannot render contracted forms in elliptical environments. In other words, the contracted 's auxiliary is not yet in the derivation during syntax so it simply is not present or even available at the time Agree must occur for licensing. We could assume that contraction is a repair strategy at PF, like postposing, and when possible, alternate forms such as contraction are chosen to avoid violations of constraints such as Strong Start. This means that much like in pronoun postposing, no repair is necessary in elliptical environments. In other words, no cliticization option is available after PF deletion. Figure 12 is repeated below to provide the PF processes that occur for contraction and the effect of Strong Start.

### Figure 12: Strong Start<sup>58</sup> and clitics

Assumptions for the assignment of prosodic phrasing for full and contracted copula given Strong Start.

#### 3. When ellipsis does not occur, the syntax sends A to PF

- A. (John) (is happy.)
- B. PF Deletion (none)
- C. Linearization Options for Surface realization  
(John) (is happy) → a. (John's) (happy)  
b. (John) (is happy)

In A. StrongStart is satisfied as the weak form of the copula is chosen leaving the strong lexical word *happy* to occupy the initial position in the phonological phrase.<sup>59</sup> In b. Faithfulness is satisfied but StrongStart receives a violation.

#### 4. When ellipsis occurs, the syntax sends A to PF

- A. (John) (is *happy*)
- B. PF Deletion (occurs)
- C. (John) (is *happy*) → (John) (is *e*)
- D. Linearization Options for surface realization  
(John) (is *e*) → a. (John) (is *e*)
- E. A variant [(John's) (*e*)] is never a potential surface string as it violates Strong Start and Higher ranked Constraint regarding mapping of Syntax to prosody and thus cannot be considered as a surface string.

In C. StrongStart is NOT violated because the copula is not to the left of anything higher in the prosodic structure. Furthermore, no optional form is available. PF cannot choose a clitic form as it would lead to prosodic ill-formedness as each phrase must minimally contain a prosodic word.

Ultimately, what we learn from Figure 12 is that the relevant constraint here, Strong Start, is not violated in the event of ellipsis, therefore, the selection of the clitic is not required (or possible) given ellipsis (PF deletion). This raises the question of whether contraction being blocked in these constructions is really about ellipsis licensing, or whether we might assume ellipsis cannot occur following contraction simply for prosodic reasons. One could presume that the alternation is not syntactic, and thus not about ellipsis licensing.

<sup>58</sup> **StrongStart:** A violable constraint consisting of an avoidance of stray syllables at the left edge of a phrase. A prosodic constituent optimally begins with a leftmost daughter constituent, which is not lower in the prosodic hierarchy than the constituent that immediately follows.

<sup>59</sup> We can be agnostic to what happens specifically: either moving the copula to be enclitic or inserting a clitic form would do.



Figure 12 seems to explain the data and support a possible purely prosodic explanation for non-licensing of contracted elements. However, there is a near-fatal limitation of assuming that the timing account explains the inability of contracted forms to license ellipsis.

First, a prosodic account for licensing of ellipsis was ruled out for possessives in Chapter 3. This should encourage us to assume a prosodic account may not be appropriate for VPE either given the widely held assumption that DP and TP domains are structurally and transformationally similar. The data in (213) provide evidence that prosody alone cannot fully predict licensing data.

- (213) Sam has been swimming, and John has *e* also.  
a. [John] [has also]  
b. \*[John's][also]

In example (213), according to Strong Start, contraction should be preferred given that *also* should be a strong enough morpheme to satisfy the constraint for each phrase to be morphologically represented by a prosodic word. Because of the prosodic word status of *also*, we would expect PF to allow contraction here to avoid an initial function word. But instead, contraction yields the ungrammatical string in example (213)b. Because contraction is blocked here, we must assume that the preservation of the element that represents the functional head is necessary.<sup>60</sup> In other words, satisfaction of the prosodic constraints does not seem to be the priority here. Something else is blocking ellipsis with the contracted element, and requiring that the full form remain.

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<sup>60</sup> This is even more interesting given that functional elements are assumed to lack PWord status. In essence, we not only see contraction blocked, but potentially, the promotion of a functional element to PWord status.

I contend that this full functional element is necessary because the expression of the full form is what encodes an environment as one containing ellipsis. Thus, the ungrammaticality of contraction in (213)b here must be an artifact of ellipsis, and not a reflection of PF processes. These data seem to cast doubt on the premise that the prosody alone is responsible for the non-licensing by contracted elements given the timing of morpheme insertion, and casts doubt on the strength of the Timing Account as a viable proposal for why contracted elements do not license ellipsis.

Ultimately, the independent evidence presented in this chapter leads us to favor the Structural Deficiency account (AgreeFAIL) as the explanation for why contracted and weak forms of functional elements do not license ellipsis. We have seen evidence for Structural Deficiency, the idea that differing numbers of features are available for strong vs. weak forms. Both pronouns in Italian and non-agreement patterns in existential *there*-constructions demonstrate that strong forms of morphemes have a wider distribution and thus more features than their weak or clitic forms. Furthermore, only strong forms of the copula and infinitives were shown to license ellipsis. Even auxiliary and copula forms that are stronger than clitics but are phonologically reduced variants of their full forms (/əz/ for example) fail to license VPE. This suggests that non-licensing of certain elements is not simply a quirk of clitic status but is due to being anything other than a strong form. The AgreeFAIL explanation captures the range of facts related to licensing of VPE with strong forms in both MAE and AAE as it relies on the principle of structural deficiency.

The contraction data seems to confirm the premise that licensing of ellipsis is an agree process, and that the analysis for licensing developed in the preceding chapter, Agree<sub>OCE</sub>, is maximally explanatory. Again, Agree<sub>OCE</sub> states that ellipsis is licensed by an agree relationship between an overt functional element and a lexical phrase it C-commands. Thus, what we have been calling *overt* correlates with the strongest morphological form of the functional head. These strong forms all have the characteristic of being morphologically and phonologically realized. This seems reminiscent of Lobeck's (1995) feature-based theory, which suggested that strong agreement features were responsible for licensing. The current account, however, goes a step further in identifying that the strong agreement features must be represented by a strong morpheme in the surface string. Furthermore, Agree<sub>OCE</sub> is also explanatory of the data given that it also accounts for non-local licensing and, with the help of Structural Deficiency, provides an elegant analysis of the behavior of contraction and ellipsis.

## CHAPTER 6

### ACCOUNTING FOR CLAUSAL ELLIPSIS

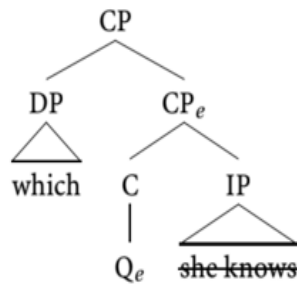
#### 6.1 Introduction

The OCE makes the claim that Predicate Ellipsis is licensed by a phonologically overt element in a preceding functional head. This overtness description accounts for a wide range of data in AAE and MAE, and further work should evaluate its strength in other languages. Agree<sub>OCE</sub> formalizes the overtness criterion and was shown to predict ellipsis licensors and targets for deletion crosslinguistically for both VPE and NPE constructions. This has led us to conclude that the overtness of the licensing head is crucial in Predicate Ellipsis. Yet, the opposite is true for Clausal Ellipsis wherein the functional head must crucially be *silent*. Merchant's (2001) discussion of sluicing as it relates to the Doubly-filled Comp filter shows that no C morpheme can even co-occur with a wh element, which rules out constructions like (214) with both a wh- element and a complementizer. If no morpheme can co-occur, no C morpheme can be responsible for licensing of sluicing.

- (214) I know that someone left, but I'm not sure <sub>CP</sub> [who]<sub>[C[C ∅, \*that/if]<sub>[IP left]]]</sub>.</sub>
- a) I know that someone left, but I'm not sure who  $\Delta$ .
  - b) \*I know that someone left, but I'm not sure who that  $\Delta$ .

In (214) we see that no complementizer can occur in the head of the CP with a wh- element. The data show that the CP head nevertheless *cannot* be morphologically filled. In fact, an early proposal of Johnson (2004:12 ex 55) suggested that licensing of sluicing may hinge on a silent C. He suggests that a silent question morpheme may be responsible for licensing sluicing in examples like the one below:

(215) Jill knows a couple dances, but I can't remember which ~~she knows~~.



One goal of this dissertation has been to demonstrate that there are indeed clear differences in licensing of Predicate vs. Clausal Ellipsis. Uniformly, VPE and NPE—what I have called Predicate Ellipsis—must be licensed by an Agree relation between a morphological element in a functional head and the lexical phrase it c-commands. The deletion of clauses seems to have an opposing requirement, that no morpheme occupy the C head.

To this end, Agree<sub>OCE</sub> does not capture the data for sluicing. Thus licensing of Clausal Ellipsis phenomena must require separate licensing criteria. Below I will briefly lay out a movement-based theory of licensing devised by Thoms (2010) that seems compatible with the facts of Clausal Ellipsis.<sup>61</sup>

## 6.2 Licensing in the Syntax: A Movement-based Account

Another clear difference between Predicate Ellipsis and Clausal Ellipses like sluicing lies in the fact that all sluices require movement. Thoms (2010) proposes that the movement

<sup>61</sup> If time allows I will also briefly advance an alternate idea that licensing of Clausal Ellipsis may not have a syntactic component, but instead, may rely on semantic or prosodic properties for well-formedness based on Weir (2014).

of a Wh-element is quintessential to the licensing of sluicing. Therefore, in the example of sluicing in (216), Thoms proposes that the overt A'-movement of *when* licenses the ellipsis of the complement to the right of its landing site.

(216) I'm going to meet him, I just don't know *when*<sub>i</sub> I'm going to meet him *when*<sub>i</sub>.



In fact, Thoms suggests that sluicing, VPE, and NPE are all licensed by movement, specifically by non-A-movement. His ultimate claim is that ellipsis in general is a repair strategy necessary to avoid the linearity failure that would result at PF if an element that has been copied and moved c-commands an overt copy. Thoms takes a non-standard approach to the 'Copy and Delete' theory and proposes that the base copy of the moved element does not delete upon movement of its copy, but instead, the entire complement that housed the copy must subsequently delete at PF. This analysis seems quite ideal to describe licensing for sluicing. However, many complications arise in trying to extend this proposal to instances of Predicate Ellipsis.

Take VPE licensed by *not* as an example. In its full form, it is not commonly held that negation involves movement. Thoms argues that there might be reason to believe that movement does occur in these constructions. He first contends that the data in (217)-(219) suggest that two syntactic positions for negation are available.

(217) The Ted hoped to vacation in Liberia but his agent recommended that he not.<sup>62</sup>

(218) Some of the students have been not studying.

(219) \*Some of the students have been studying but some have been not.

Thoms proposes that negation in the example of ellipsis licensed by *not* in (217) is

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<sup>62</sup> Examples reproduced from Thoms (2010:30), examples (57)-(59).

assumed to occupy a high syntactic position. In the examples of constituent negation in (218) and (219), however, *not* is assumed to be in a relatively lower position. He then makes the case that because ellipsis fails to occur under constituent negation, we might assume that this negative element is base-generated in the low position. Given this postulation, ellipsis cannot be licensed in (218) because *not* has been merged low, and thus has undergone no movement appropriate for licensing. In contrast, Thoms asserts that because negation in the high position *does* license ellipsis, we could see this as evidence that movement has occurred from the low to high position. (That is, of course, if we assume that the presence of ellipsis is indicative of movement in these instances.)

Unfortunately, while there is evidence that multiple positions for negation exist, there is no relevant independent evidence to suggest that negation, in any configuration, undergoes movement. Additionally, if two syntactic positions for negation exist, these positions should correspond to different semantic interpretations. Therefore, important evidence to support movement would also come from sentences in which negation in the high position could have a similar semantic interpreted in its base position as well.

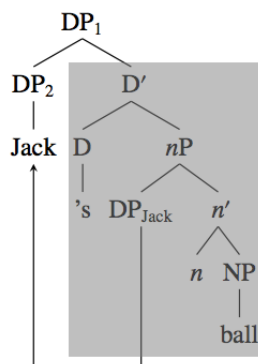
- (220) Andraya and Tatum **didn't** always fear the toe-eating monster.  
 (221) Andraya and Tatum always **didn't** fear the toe-eating monster.

However, phrases like (220) with negation in the high position, and its counterpart with negation interpreted in its base-generated position, (221), are not synonymous due to differences in scope. Thus, negation facts do not seem to confirm Thoms' claim that *not* is an element that moves. Without evidence of movement, this movement-based licensing

condition cannot explain the ellipsis facts for negation.<sup>63</sup>

Next, Thoms account also cannot be easily extended to ellipsis in DPs as no head or A'-movement occurs in such constructions, only A-movement of the possessor to Spec DP. Even, if A-movement of the possessor were enough to license ellipsis, we would then expect that possessive morphology in D would also be elided as he claims that all material to the right of the landing site must not be produced. If his analysis is correct, we would expect to find that the possessor in possessive DPs, having moved leftward to the specifier of the possessive DP, would license deletion of both -s morphology and the NP complement. This, of course, does not occur as we see in the structure and representative sentence in (222).

- (222) \*That's Mykah('s) ball and that's Jack Δ.  
 "That's Mykah's ball and that's Jack's."



In the proposed structure of the possessive DP under (222) we see that the possessive structure that is generated given Thoms' general analysis is ungrammatical. To avoid generating the illicit surface form in (222), Thoms must stipulate that suffixation of 's to the possessor in the specifier occurs, and does so prior to ellipsis in order for the 's to escape deletion. He defines this process of suffixation as non-A movement of 's to the

<sup>63</sup> Many thanks to Kyle Johnson for bringing up this counter evidence.



possessor in SpecDP. While this generates the proper surface form, this view of genitive case “movement” lacks sufficient support.

Finally, Thoms admits that licensing of NPE that does not involve possessives as in (223) poses somewhat of a challenge for his theory, as there is no evidence in MAE that DP-internal movement happens in these cases.

(223) I gave Rachel three cans of Spaghetti-Os, so I had to give Katherine four  $\Delta$ .

However, Thoms appeals to cross-linguistic work on NPE in an attempt to motivate claims that some movement does occur in these non-possessive instances. For example, cases of non-possessive NPE in Spanish discussed in Eguren (2009) are proposed as data that have been reported to display DP-internal movement related to focus elements. Interestingly, Eguren ultimately argues against previous analyses that equate licensing of the relevant NPE phenomena with overt focus movement in favor of a feature-based lexical insertion analysis. There is just no clear evidence of movement in in MAE or cross-linguistically, and consequently, no support for Thoms’ approach to licensing for these data.

Thoms’, like Merchant’s, represents another account of ellipsis licensing that tries to unify Clausal Ellipses like sluicing and Predicate Ellipsis, but to no avail. While Thoms’ movement-based licensing requirement seems to work quite well for sluicing,<sup>64</sup> it just cannot quite explain licensing of VPE with *not*, and various forms of NPE. First, stipulating that movement occurs in licensing of ellipsis in negation constructions made the wrong predictions about scope. Second, to explain NPE for possessives, a view of

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<sup>64</sup> Also see Thoms (2010) for a movement account of fragment answers.

genitive marking that is not strongly supported had to be adopted. Lastly, licensing of NPE that does not require possessive marking cannot definitively be described by a movement-based account.

The elegance of Thoms' proposal for sluicing juxtaposed with the ineffectiveness of this account for other ellipsis types is perhaps more compelling evidence that we should recognize Clausal Ellipsis as being subject to different licensing criteria. Thus we might suspect that Clausal Ellipsis is licensed by elements related to movement, while evidence across English dialects demonstrates that NPE and VPE pattern the same—both are licensed by a functional head that *must* be overt.

### **6.3 Licensing at LF: Evidence from Fragments**

Through the course of the dissertation I have provided evidence that suggests that morphosyntactic overtiness is necessary for the licensing of Predicate Ellipsis. I have argued that this need for overtiness in licensing Predicate ellipsis while Clausal Ellipsis crucially does not involve such overtiness is indicative of the need for separate licensing criteria for these phenomena. Yet, is there truly external evidence to suggest that these deletion phenomena have unique DNA? The differences in the licensing requirements for sluicing with regard to overtiness may also suggest that syntactic licensing is not, in fact, necessary for Clausal Ellipsis. Other literature supports this hypothesis as differences in antecedent conditions have been identified (Weir 2014), and a number of psycholinguistic studies suggest that the brain processes sluicing at different rates and by slightly different mechanisms than VPE (San Pietro et al 2012). In addition to neurological and acquisition evidence, there is also a clear typological difference. The

literature shows that while ellipsis phenomena like sluicing are attested in most world languages, predicate ellipsis phenomena are actually quite rare. Thus, if Predicate and Clausal ellipses both draw from the same basic grammatical mechanisms, we should not expect such a disparity related to the distribution of Predicate vs. Clausal ellipsis crosslinguistically. Future research should further investigate possibility that syntax may not be driving the licensing of Clausal Ellipsis, though it is crucial to licensing Predicate Ellipsis, thereby lending credence to the notion that separate criteria are necessary to explain ellipsis licensing.

## CHAPTER 7

### CONCLUSION

In this dissertation, I have argued that an overt functional head is required to license Predicate Ellipsis using original data from African American English as well as previous work on MAE as well as other languages. Specifically, I have shown that in environments where AAE allows optionality in the phonological realization of functional heads, ellipsis only occurs following phonologically overt functional material. The results of two experiments have served to bolster Potsdam's (1996, 1997) early observation regarding the role of overtness for licensing of VPE and were used to extend the generalization to NPE phenomena. The predictions formalized in the Agree<sub>OCE</sub> correctly account for this cross-linguistic data for ellipsis licensing. Furthermore, Agree<sub>OCE</sub> rules out ungrammatical data from MAE that analyses proposing a unified condition for licensing of Predicate and Clausal Ellipsis cannot. The importance of overtness for licensing is not present in the theories of ellipsis licensing proposed by Lobeck (1995) and also Merchant (2001). Ultimately, it is the major contribution of optionality in AAE that makes clear the critical role of overtness of the preceding functional head for licensing of Predicate Ellipsis. Only the Agree<sub>OCE</sub> analysis predicts the range of data related to licensing for ellipsis in the DP and TP domains. In that no previous unified account of ellipsis licensing has been sufficiently explanatory of both Clausal and Predicate Ellipsis, this dissertation ultimately demonstrates that the preponderance of crosslinguistic evidence forces us to conclude that one licensing account is simply not enough.

Future research should investigate the role child acquisition data can play in identifying whether the overttness criterion is a universal and whether the acquisition course of Predicate vs. Clausal Ellipsis may provide further evidence that different mechanisms underlie licensing. For example, if children master both sluicing and VPE at similar points in development, it could be assumed that the same mechanisms underlie licensing. However, if Predicate ellipsis is acquired earlier than sluicing, or much later, we would have even more compelling evidence that differing licensing processes are at play.

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